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Bulletin of Zoological Nomenclature

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The Bulletin of Zoological Nomenclature

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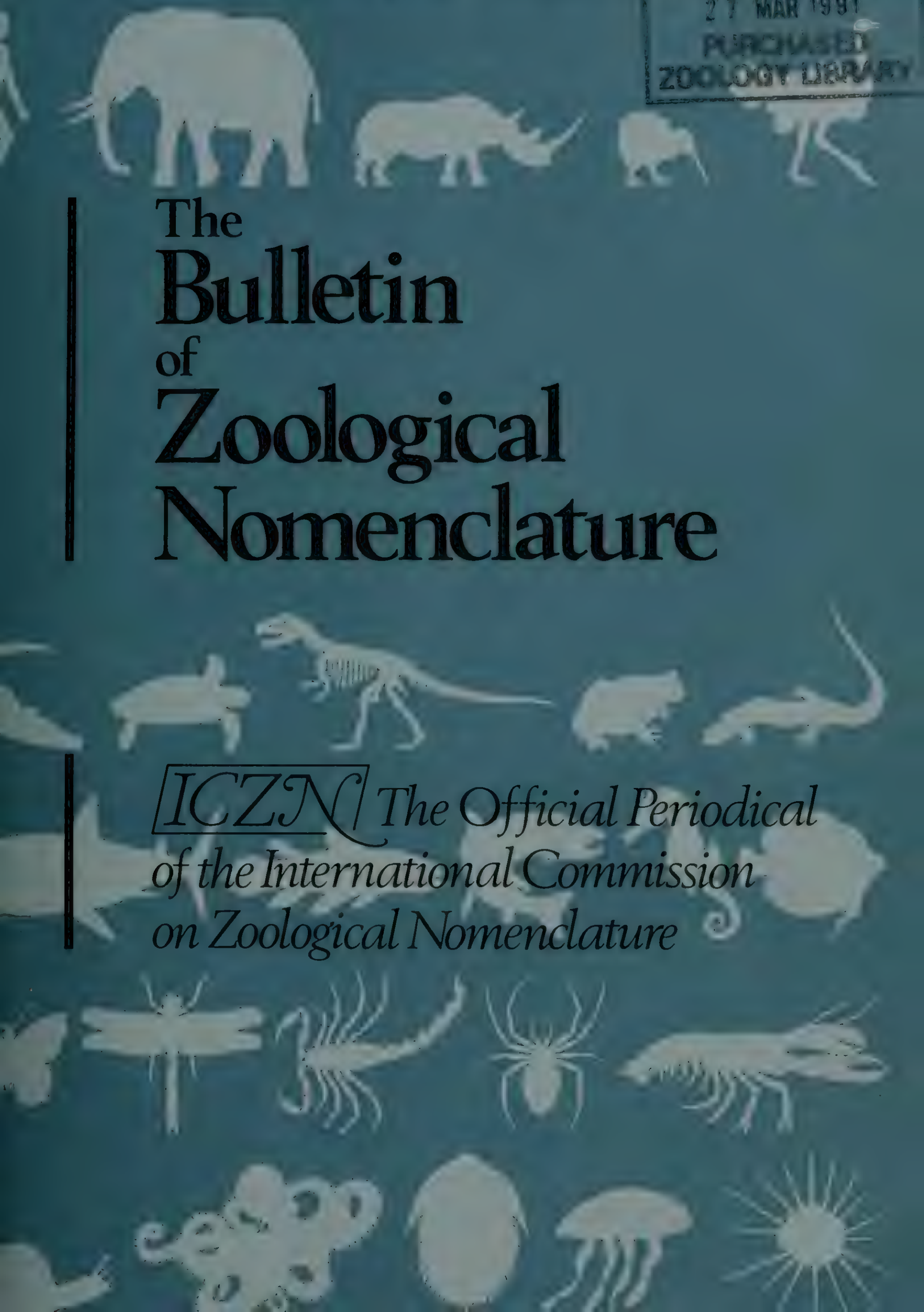

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Notices

(a) *Invitation to comment*. The Commission is authorised to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after their publication, but this period is normally extended to enable comments to be submitted. Any zoologist who wishes to comment on any of the applications is invited to send his contribution to the Executive Secretary of the Commission as quickly as possible.

(b) *Invitation to contribute general articles*. At present the *Bulletin* comprises mainly applications concerning names of particular animals or groups of animals, resulting comments and the Commission's eventual rulings (Opinions). Proposed amendments to the Code are also published for discussion.

Articles or notes of a more general nature are actively welcomed provided that they raise nomenclatural issues, although they may well deal with taxonomic matters for illustrative purposes. It should be the aim of such contributions to interest an audience wider than some small group of specialists.

(c) *Receipt of new applications*. The following new applications have been received since going to press for volume 47, part 4 (published on 20 December 1990). Under Article 80 of the Code, existing usage is to be maintained until the ruling of the Commission is published.

(1) UROCOPTIDAE Pilsbry, 1898 (Mollusca, Gastropoda): a proposal that it take the precedence of CYLINDRELLIDAE Tryon, 1868. (Case 2790). G. Rosenberg.

(2) *Chelifer museorum* Leach, 1817 (currently *Cheiridium museorum*; Arachnida, Pseudoscorpionida): proposed conservation of the specific name. (Case 2791). M.S. Harvey.

(3) *Cynolebias opalescens* Myers, 1942 and *C. splendens* Myers, 1942 (Osteichthyes, Cyprinodontiformes): proposed conservation of the specific names. (Case 2792). C.J. Ferraris Jr. & K.J. Lazara.

(4) METOPIINAE Foerster, 1868 (Insecta, Hymenoptera), METOPIINI Raffray, 1904 (Insecta, Coleoptera) and METOPIINI Townsend, 1908 (Insecta, Diptera): proposed removal of homonymy. (Case 2793). M.K. Thayer, A.F. Newton Jr. & T. Pape.

(5) *Gerris paludum* Fabricius, 1794 (currently *Aquarius paludum*; Insecta, Heteroptera): proposed conservation of the specific name. (Case 2794). N.M. Andersen.

(6) ANTHRIBIDAE Billberg, 1820 (Insecta, Coleoptera): proposed precedence over CHORAGIDAE Kirby, 1819. (Case 2795). H. Silfverberg.

(7) *Helophorus* Fabricius, 1775 (Insecta, Coleoptera): proposed conservation as the correct original spelling. (Case 2796). R.B. Angus.

(8) *Scylliorhinus atlanticus* Koefoed, 1927 (currently *Apristurus atlanticus*; Chondrichthyes, Carcharhiniformes): proposed conservation of the specific name. (Case 2797). K. Nakaya & B. Séret.

(9) *Lincus* Stål, 1867 (Insecta, Heteroptera): proposed conservation, and *L. croupius* Rolston, 1983: proposed conservation of the specific name. (Case 2798). L.H. Rolston.

(10) *Simulium* (*Nevermannia*) *juxtacrenobium* (Insecta, Diptera): proposal that availability of the specific name be taken from the intended original description by Bass & Brockhouse, 1990. (Case 2799). J.A.B. Bass & C. Brockhouse.

(11) *Shelfordina* Hebard, 1929 (Insecta, Blattaria): proposed designation of *Neoblattella fuscocastanea* Hanitsch, 1929 as the type species. (Case 2800). L.M. Roth & K.H.L. Key.

(12) *Potamolithus* Pilsbry, 1896 (Mollusca, Gastropoda): proposed conservation of *P. rushii* Pilsbry, 1896 as the type species. (Case 2801). M.F. Lopez Armengol & M.O. Manceñido.

(13) *Anisolepis grilli* Boulenger, 1891 (Reptilia, Squamata): proposed conservation of the specific name. (Case 2802). R. Etheridge & E.E. Williams.

(14) *Copromyza limosa* Fallén, 1820 (currently *Leptocera* (*Rachispoda*) *limosa*; Insecta, Diptera): proposed replacement of lectotype. (Case 2803). K.C. Kim & J. Roháček.

(15) *Drosophila putrida* Sturtevant, 1916 (Insecta, Diptera): proposed replacement of the holotype by a neotype. (Case 2804). D. Grimaldi.

(16) *Ptychagnostus* Jaekel, 1910 (Trilobita): proposed conservation of *Agnostus punctuosus* Angelin, 1851 as the type species. (Case 2805). J.H. Shergold & J.R. Laurie.

(d) *Rulings of the Commission.* Each Opinion, Declaration or Direction published in the *Bulletin* constitutes an official ruling of the International Commission on Zoological Nomenclature, by virtue of the votes recorded, and comes into force on the day of publication of the *Bulletin*.

The International Commission on Zoological Nomenclature and its publications

The International Commission on Zoological Nomenclature was established in 1895 by the III International Congress of Zoology, and at present consists of 28 zoologists from 19 countries whose interests cover most of the principal divisions (including palaeontology) of the animal kingdom. The Commission is under the auspices of the International Union of Biological Sciences (IUBS), and its members are elected at open meetings held in conjunction with Congresses of IUBS or of its associated bodies. Casual vacancies may be filled between Congresses. Nominations for membership may be sent to the Commission Secretariat at any time.

The International Code of Zoological Nomenclature has one fundamental aim, which is to provide 'the maximum universality and continuity in the scientific names of animals compatible with the freedom of scientists to classify all animals according to taxonomic judgements'. The latest (Third) Edition was published in 1985 by the International Trust for Zoological Nomenclature, acting on behalf of the Commission. Suggested amendments to the *Code* should be sent to the Secretariat.

Observance of the rules in the *Code* enables a biologist to arrive at the valid name for any animal taxon between and including the ranks of subspecies and super-family. Its provisions can be waived or modified in their application to a particular case when strict adherence would cause confusion; however, this must never be done by an individual but only by the Commission, acting on behalf of all zoologists. The Commission takes such action in response to proposals submitted to it; applications should follow the instructions on the inside back cover of the *Bulletin*, and assistance will be given by the Secretariat.

The Bulletin of Zoological Nomenclature is published four times each year. It contains applications for Commission action, as described above; their publication is an invitation for any person to contribute comments or counter-suggestions, which may also be published. The Commission makes a ruling (called an Opinion) on a case only after a suitable period for comments. All Opinions are published in the *Bulletin*, which also contains articles and notes relevant to zoological nomenclature; such contributions may be sent to the Secretariat.

The Commission's rulings are summarised in *The Official Lists and Indexes of Names and Works in Zoology*; a single volume covering the period 1895–1985 was published in 1987, and a free supplement covering 1986–1990 was issued in 1991. Copies may be obtained from the Secretariat.

In addition to dealing with applications and other formal matters, the Commission's Secretariat is willing to help with advice on any question which may have nomenclatural (as distinct from purely taxonomic) implications.

The International Trust for Zoological Nomenclature is a charity (non-profit making company) registered in the U.K. The Secretariat of the Commission is at present based in London, and the Trust is established there for legal reasons to handle the financial affairs of the Commission. The sale of publications (*Code, Bulletin and Official Lists and Indexes*) covers only part of the costs of the service given to zoology by the Commission. Support is given by academies, research councils, associations and societies from a number of countries, and also by individuals, but despite this assistance the level of income remains a severe restraint and donations to the Trust are gratefully received.

Addresses of members of the Commission

Dr F.M. BAYER *U.S. National Museum of Natural History, Washington, DC 20560, U.S.A.*
Prof W.J. BOCK *Department of Biological Sciences, Columbia University, New York, NY 10027, U.S.A.*
Dr L.R.M. COCKS *The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.*
Dr H.G. COGGER *Australian Museum, P.O. Box A285, Sydney South, N.S.W. 2000, Australia* (Vice-President)
Prof J.O. CORLISS *P.O. Box 53008, Albuquerque, New Mexico 87153, U.S.A.* (Councillor)
Prof C. DUPUIS *Muséum National d'Histoire Naturelle, 45 rue de Buffon, 75005 Paris, France*
Prof Dr G. HAHN *Institut für Geologie und Paläontologie, Philipps-Universität, D-3550 Marburg, Germany*
Prof Dr O. HALVORSEN *Zoological Museum, Sars GT, 1, N-0562 Oslo 5, Norway*
Mr D. HEPPELL *Department of Natural History, National Museums of Scotland, Chambers Street, Edinburgh EH1 1JF, U.K.*
Dr L.B. HOLTHUIS *Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands*

Dr Z. KABATA *Canada Department of Fisheries and Oceans, Pacific Biological Station, Nanaimo, B.C., V9R 5K6, Canada*
Prof Dr O. KRAUS *Zoologisches Institut und Zoologisches Museum, Martin-Luther-King-Platz 3, D-2000 Hamburg 13, Germany* (President)
Dr P.T. LEHTINEN *Zoological Museum, Department of Biology, University of Turku, SF-20500 Turku 50, Finland* (Councillor)
Dr E. MACPHERSON *Instituto de Ciencias del Mar, Paseo Nacional, s/n, 08039 Barcelona, Spain*
Dr V. MAHNERT *Muséum d'Histoire naturelle, Case postale 434, CH-1211 Genève 6, Switzerland*
Prof U.R. MARTINS DE SOUZA *Museu de Zoologia da Universidade de São Paulo, Caixa Postal 7172, 04263 São Paulo, Brazil*
Prof A. MINELLI *Dipartimento di Biologia, Università di Padova, Via Trieste 75, 35121 Padova, Italy*
Dr M. MROCZKOWSKI *Instytut Zoologii, Polska Akademia Nauk, ul. Wilcza 64, Warsaw, Poland*
Dr C. NIELSEN *Zoologisk Museum, Universitetsparken 15, DK-2100 København, Denmark*
Dr I.W.B. NYE *c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.* (Councillor)
Dr W.D.L. RIDE *Department of Geology, The Australian National University, P.O. Box 4, Canberra, A.C.T. 2600, Australia*
Dr J. M. SAVAGE *Department of Biology, University of Miami, P.O. Box 249118, Coral Gables, Florida 33124, U.S.A.* (Councillor)
Prof Dr R. SCHUSTER *Institut für Zoologie, Universität Graz, Universitätsplatz 2, A-8010 Graz, Austria*
Dr Y.I. STAROBOGATOV *Zoological Institute, Academy of Sciences, Universitetskaya naberezhnaya 1, Leningrad 199034, U.S.S.R.*
Dr F.C. THOMPSON *Systematic Entomology Laboratory, USDA, c/o U.S. National Museum, Washington, DC 20560, U.S.A.*
Dr V.A. TRJAPITZIN *Zoological Institute, Academy of Sciences, Universitetskaya naberezhnaya 1, Leningrad 199034, U.S.S.R.*
Dr Shun-Ichi UENO *Department of Zoology, National Science Museum, Hyakunin-cho 3-23-1, Shinjuku-ku, Tokyo 160, Japan*
Prof A. WILLINK *Universidad Nacional de Tucumán, Instituto Miguel Lillo, Miguel Lillo 205, 4000 Tucumán, Argentina*

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Official Lists and Indexes of Names and Works in Zoology—Second Supplement to 1990

The Official Lists and Indexes of Names and Works in Zoology was published in 1987. This book gives details of all the names and works on which the Commission has ruled since it was set up in 1895 up to 1985; there are about 9,900 entries.

In the five years 1986–1990, 946 names and five works have been added to the Official Lists and Official Indexes. A supplement has been prepared giving these additional entries, together with some amendments and updatings to entries in the 1987 volume. This supplement is circulated to all subscribers to the *Bulletin of Zoological Nomenclature* with Vol. 48, Part 1 of the *Bulletin*. Copies can be obtained without charge from either of the following addresses from which the *Official Lists and Indexes* can also be ordered at the price shown (postage included). Payment should accompany orders.

The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £60 or $110.
or
The American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington, D.C. 20560, U.S.A. Price $110 ($100 to members of A.A.Z.N.).

Bulletin of Zoological Nomenclature — Crustacea and Mollusca Offprints

As an experiment to assess the demand, the International Trust for Zoological Nomenclature is introducting a subscription for individual zoologists wishing to receive offprints of all cases in particular disciplines. For an annual payment of £15 or $25 subscribers will receive copies of all Applications, Comments and Opinions relating to either the Crustacea or Mollusca as soon as they are published in the *Bulletin of Zoological Nomenclature*. Offprints are available back to 1980.

Orders for offprints relating to either the Crustacea or the Mollusca should be sent to I.T.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K., with payment at the rate of £15 or $25 for each year requested.

Problems in the Nomenclature of Higher Taxonomic Categories

Ya. I. Starobogatov

Zoological Institute, Academy of Sciences of the U.S.S.R., Universitetskaya naberezhnaya 1, 199034 Leningrad V-34, U.S.S.R.

Translated by Mark J. Grygier

Sesoko Marine Science Center, University of the Ryukyus, Sesoko,
Motobu-cho, Okinawa 905-02, Japan
(current address: *14804 Notley Road, Silver Spring, Maryland 20905, U.S.A.*)

Translator's note. This article first appeared in 1984 (see references) and the translation is published with the permission of the author and of Izdatel'stvo Nauka, the publisher of the Russian original.

Dr Starobogatov is a noted Soviet zoologist, a widely respected malacologist and theoretical phylogenist, and a member of the International Commission on Zoological Nomenclature. Since the first publication in Russian of Dr Starobogatov's proposals for the gradual introduction of regulation of the nomenclature of taxonomic categories higher than superfamily, he has applied these proposals himself in several publications concerning various groups of arthropods. His revision of the classification of the Crustacea (Starobogatov, 1986), for example, reached a broad audience after its translation into English (Starobogatov, 1988). I believe that a republication in English of the reasoning and the formal proposals that lie behind his controversial nomenclatural revisions is necessary and overdue. Some slight alterations and abridgements have been made in the text, with Dr Starobogatov's approval, in order to clarify and update certain passages.

A few years ago, in the pages of *Paleontologicheskiy Zhurnal*, a paper by Rohdendorf (1977) appeared that was devoted to the problem of the nomenclature of higher taxa. [This paper was reproduced in English in Rasnitsyn's (1982) proposal to extend the provisions of the Code to taxa above the family-group (BZN **39**: 200–207)]. Rohdendorf was not only a very well known Soviet paleontologist and entomologist, but also a great specialist on problems of zoological nomenclature (he represented the U.S.S.R. on the International Commission of Zoological Nomenclature). It is more often in paleontological studies that the need arises to revise large taxa, and in connection with this, questions arise about the selection of suitable names for them. Zoologists, especially those studying groups with a stable system that has been worked out in detail (for example, vertebrate zoologists), are rather less bothered by these questions, zoologists who study poorly worked out groups being the most interested in them. It is no accident that a detailed paper with an analysis of these problems (Chitwood, 1958) was the work of an eminent specialist on the systematics of nematodes.

The currently valid *International Code of Zoological Nomenclature* does not regulate the names of taxa higher than superfamily; it is often said that they do not need to be regulated because there are few such names and they are all widely known. In fact, this is absolutely not the case: they are not regulated only because, in so doing, it would be very difficult not to produce a serious breakdown in existing customs concerning the formation and utilization of names of higher categories. However, sooner or later we will be forced to do so, and it is better to discuss beforehand possible means of regulating the nomenclature of higher categories and possible ways to introduce such regulation, in order that the transition be the least painful. In discussing the nomenclature of higher categories, I do not, however, believe that it is possible to take such categories as kingdom or subkingdom into consideration, mostly because zoological nomenclature can be applied only to one kingdom of animals and two subkingdoms (unicellular and multicellular animals). For those who are interested, questions concerning these categories are considered in the paper by Chitwood (1958) cited above.

The names of higher categories are remarkably non-homogeneous in character. Some of them are more or less tied to the name of one of the genera included within them, that name thereby being the nomenclatural type of the name of the higher-rank taxon. I call such names 'typified', following Štys & Kerzhner (1975). Other names are based only on the features of a given taxon (albeit far from always the most characteristic ones) and are not at all connected with the names of genera included in these taxa, and I call such names 'descriptive', after the same authors. Examples of typified names: Echinoidea, Sipunculida, Myzostomida, Blattoidea, Gadiformes; they are clearly connected with the genera *Echinus*, *Sipunculus*, *Myzostoma*, *Blatta* and *Gadus*. Examples of descriptive names: Arthropoda, Crustacea, Insecta, Orthoptera. It must be emphasized that the differences between these two types of names are most often purely formal. For example, the name of the order Actinodonta, proposed by Douvillé (1912), may have been based on the generic name *Actinodonta*, but more likely on one or another peculiarity of the hinge of these bivalve molluscs, even though this generic name already existed in 1912 and without a doubt was known to Douvillé.

Family-group names also once belonged to these two types, but the descriptive names among them were always considerably fewer, and at the end of the last century these descriptive names were completely displaced by typified ones. This made it possible to introduce rules regulating family-group names in the 1960's. Order-group and higher-rank names are a different matter. It is sufficient to glance through some old nomenclators to understand that descriptive names given to higher-rank taxa are no less abundant than typified ones. In the last few decades a tendency for the introduction of typified names has been clearly evident. They are generally accepted in the systematics of birds, fish, polychaetes and nematodes, and are being introduced into the systematics of molluscs and some other animal groups.

The advantage of typified names is obvious: the usage of such names is easy to regulate, only requiring a small amount of rephrasing (without changing the basic idea) of those Articles of the Code concerned with names in general and with family-group names. In other words, the problems of the availability of names, authorship and date of publication, priority and homonymy could be resolved in the spirit of the established, customary regulations of the Code. In contrast, difficulties often arise with descriptive names. The accumulation of knowledge about any taxonomic group usually leads to a demonstration that the special features expressed in the descriptive name of a group are not characteristic after all or are peculiar to only some of its representatives. This causes some systematists to want to change the names of groups into ones which are, in their opinion, more appropriate, and which, incidentally, in time also come to be shown not to be entirely suitable. The accumulation of systematic knowledge inevitably also leads to the elevation in rank and subdivision of groups. When this happens, the descriptive names given to these groups are either raised in rank (as has happened with most names, for example Gastropoda and Prosobranchia) or the sense embodied in these names is maintained at the same rank, but narrowed in scope. Thus the customary name Insecta had at the time of Linnaeus the meaning that is now embodied in the name Arthropoda, and it was narrowed down later to its usual sense; furthermore, when the removal of a set of apterygote groups from this class becomes generally accepted, this narrowing will become still greater. Similar transformations first of all refute usual notions about the tradition and convenience of such names, and secondly create nomenclatural difficulties. Crustaceans are currently divided into several classes, for example into nine by Manton (1969). To which of these classes should the name Crustacea belong? Since these classes are contained in a single taxonomic grouping of higher rank (superclass or subphylum), then it may be best to retain this name for the latter grouping. If there were no such higher-rank grouping, then the name Crustacea would probably have suffered the fate of the name Vermes.

Another inconvenience of the descriptive names is connected with a phenomenon that can be called hemihomonymy. Sometimes the spelling of a descriptive name is easy to confuse with that of a typified one, especially if it has a similar standard ending. Yet it turns out that the genus which would be the type of that name, if it were a typified one, does not even belong to that taxon. For example, among gastropod molluscs there is an order-group name Ditremata, but the genus *Ditrema* is not a mollusc at all, but a fish. This circumstance already long ago compelled malacologists to avoid the name Ditremata, replacing it with another not suffering from such a shortcoming. The same is true for the widely known name of one of the taxonomic groups of cephalopod molluscs, Teuthida, since *Teuthis* is the generic name of a fish.

All the foregoing speaks in favor of the introduction of typified names for taxa of all ranks; however, carrying out such a reform involves considerable difficulties, the major ones of which we will discuss now.

The first difficult problem is that of standard endings. In the literature there are a great many systems of standard endings (Tables 1–3; see p. 17). More endings have been proposed for ordinal groups than for groups of higher taxonomic rank. Each such system has been constructed starting from the principles of euphony, brevity, and ease of distinguishing rank. However, in doing this, one extremely important requirement of the endings has been forgotten, one which limits our choices very substantially. The endings must be selected so that they completely, or in any case maximally, exclude homonymic coincidences of the names of higher taxa with generic names. As we all know, the Code considers homonyms only within groups (for example, within the genus-group and within the family-group), but not between names belonging to different groups. This is understandable, since homonyms between a genus-group name and a name belonging to the family-group almost cannot arise; names in the genus-group must be in the singular (Article 11g) while plural endings or endings resembling them are used for family-group names. Such cases are only possible in connection with the names of superfamilies; for example, the genus *Nuculoidea* is included in the superfamily NUCULOIDEA. In this connection, it would be worthwhile to discuss changing the ending recommended by the Code for superfamily names; in place of -oidea, -oideae would be better. Therefore, in regulating names no higher than those of the family-group, the Code justifiably ignores intergroup homonyms. But in proposing an extensive system of standard endings for higher taxa, we must not forget about this undesirable phenomenon. For example, let us look at the endings suggested by Rohdendorf (1977). The most dangerous one with respect to intergroup homonymy is the ending -ina. We can name thousands of generic names ending with this sequence of letters. Only a number of generic names of bivalve molluscs may be cited: *Aphrodina*, *Argina*, *Mytilina*, *Nuculina*, *Nayadina* and many other names. To avoid homonymous coincidences when utilizing this ending for the names of suborders, we must distort the stem of the name of the genus utilized for the name of the suborder, for example Mytileina in contrast to *Mytilina* (Scarlato & Starobogatov, 1979), and Helixina and Limaxina in contrast to *Helicina* and *Limacina* (Schileyko, 1979). Less of a danger in this respect are the endings -oda, -ona, -idea, -oida, -ida, and -omorpha. For proof of the possibility, in principle, of coincidence, here again are enumerated some generic names of bivalve molluscs: *Polymesoda*, *Phymesoda*, *Amesoda*, *Nuculoidea*, *Mytiloidea*, *Axinopsida*, *Mytilomorpha*, *Modiomorpha*, *Sphenotomorpha*. In view of the considerable danger of intergroup homonymy, it is obvious that not a single ending terminating in -a is at our disposal. This danger is practically eliminated with endings terminating in -i, and is considerably weakened with endings terminating in -es and -ae. Among such fortunate endings are those that are generally accepted for the names of the orders of birds and fish and the suborders of fish. Such endings are probably best reserved for orders and suborders. The other endings proposed by me have been worked out not only with regard to the usual requirements, but also primarily with the goal of minimizing the danger of intergroup homonymy (Tables 1–3). The application of standard endings to descriptive names is extremely undesirable. Firstly, this gives an unaccustomed form to such names, which are preserved now only because they are customary, and secondly this makes descriptive names similar to typified ones and thereby increases the danger of confusion connected with the phenomenon of hemihomonymy described above.

The development of standard endings is one of the most difficult questions in the nomenclature of higher taxa. In a number of taxonomic groups of animals in which typified names have long since been adopted, their own sets of endings have become customary, usually very limited sets (for orders and suborders). This adherance to custom can have a negative impact during unification. To arrive at a unanimous opinion will be very difficult and the pursuit of tradition, of apparent stability, can hopelessly wreck the idea of the nomenclatural stability of higher taxa.

The second difficult problem is the coordination of categories. As we all know, groups have been introduced into nomenclature in order to successfully apply the Principle of Coordination. It is important to note that the application of this principle has a two-fold influence on nomenclature. Firstly, the Principle of Coordination lets us reduce the number of names to a greater degree as more ranked categories are coordinated within a group. Secondly, in combination with the Principle of Priority it leads to a breakdown in nomenclatural stability, again to a greater degree as more ranked categories are joined within a group, because the replacement or suppression of a name based on a particular genus leads inevitably to the suppression or replacement of all the names in that group that are based on the same genus. The first action of the Principle of Coordination must be considered positive, the second one obviously negative.

Rohdendorf (1977) mentions order-, class- and phylum-groups only in his discussion of a system of standard endings and never talks about an application of the Principle of Coordination. However, from the examples he presents, it is clear that he personally does not recognize groups higher than the family-group and that he unites all the suprageneric categories into a single family-to-phylum group in which all the categories are coordinated. Such total coordination eliminates disputes about the authorship and date of publication of some families of birds and insects, since typified names (or at least ones typified *post hoc* — see below) of the orders of birds were published by Linnaeus, and typified names of the orders of insects by Laicharting (1781–1784), while the families appeared much later, in the 19th century. Thus the quantity of names, authors, and dates is reduced. It eliminates difficulties in cases when the rank of a taxon is not specified or is denoted by a little-used term (for example, stirps). However, total coordination has a very serious deficiency that prevents its wide introduction. A revision of the systematics of a higher-rank taxon can involve two processes: first, division or fusion of families, orders, subclasses, etc., and second, transfer of a family from one order to another or from one subclass to another. If, as in the systematics of insects, the first process predominates, then we get all advantages and see practically no deficiencies with total coordination. Possibly this is why Rohdendorf, as an entomologist, cited his own examples with complete coordination. However, if the second process predominates, as in most groups of invertebrates, then the transfer of a family must lead to wholesale name changes for all the higher groups. This danger is already expressed to a high degree in those groups (for example, hydroids) where different stages of the life cycle have been described as different genera and as belonging to different families. There is yet another source of instability with total coordination, taxonomic groups known both in extant form and also, to a greater degree, as fossil remains. In this case the fossil remains (which, of course, cannot be studied with the same completeness as extant organisms) may have been divided into independent families before the modern ones, but further study can seriously change our views on their systematic position. Thus, for many groups of animals the adoption of a scheme of total coordination leads to nomenclatural instability or requires special decisions about the conservation of names contrary to priority. Making special decisions in each individual case generally flouts the very idea of universal rules.

It is more rational to erect a small number of groups (most conveniently order-, class-, and phylum-groups, based on the name of the basic category unique to each group) and to coordinate categories only within a group. In doing so, the quantity of names, authors and dates does not grow very much, and the nomenclatural stability of higher-rank taxa is secured more dependably, since aberrant and little-studied families are the ones most exposed to the danger of transfer from one taxon to another, and the names of higher taxa are based primarily on the best known and characteristic genera. In addition, as we saw earlier, the presence of three groups is more convenient for the gradual introduction of typified names, since it allows us to change the names of lower rank taxa first and those of the highest rank later. In so doing, the name of a taxon may be formed from any available generic name regardless of which family-group name was published earliest. Thus, Laicharting (1781–1784) formed the name of an order from the genus *Cancer* (incidentally, this name has priority over Decapoda), and a family name based on the same genus first appeared in 1803, but in 1802 Latreille (1802–1803) published a family-group name (ASTACINI) based on the genus *Astacus*. It is obvious that this does not have to lead to the replacement of the ordinal name. There are rather many similar cases. The example was cited above of an order-group taxon whose name was typified by the generic name *Actinodonta.* The family name based on the same genus is the youngest in the whole taxon.

With a three-group system of coordination, we can calmly consider names of the order-group and the family-group, even ones based on the same genus, as originating independently, and to ascribe to them different authors and dates of publication. In connection with the names of the orders of insects published by Laicharting that were discussed above, they remain with the same author and date, yet 'Rasnitsyn, 1976' is attached after the class, subclass and infraclass names based on the generic name *Scarabeus,* since Laicharting did not propose such names for any unit of the class-group. As for linking the names of higher taxa with the oldest of the family names, this can be done as a supplementary means of stabilization by authors who are newly publishing names of taxa, if they so desire.

The third problem, perhaps the most difficult one, is the transition from contemporary nomenclature with descriptive and typified names to a nomenclature utilizing only typified names. The most simple and radical solution is to reject all descriptive names and change them to typified ones. Many have proposed this, among them Rohdendorf. However the whole history of both zoological and botanical nomenclature shows that such a sudden reform is absolutely impossible since it arouses a resolute protectiveness in all zoologists who are accustomed to certain names for orders, classes, and phyla. The only way out is to introduce typified names gradually in the course of large systematic revisions or as alternatives to descriptive names. It must be remembered here that the nomenclatural inconvenience of descriptive names (that are uncovered in the course of revisions) will itself be the most powerful factor in the introduction of typified ones. I am categorically against immediate changes in such customary names as Insecta, Mollusca and Gastropoda — time itself will take care of these names as it has cleared away the no less customary and understandable names Zoophyta, Vermes, Gephyrea, Myriapoda and Pseudoneuroptera, and as it is preparing to do with the names Reptilia and Crustacea. In the course of this process, the three-group system of coordination is good insurance of the gradualness of the transition, since the systematics of orders is subject to revision more often than the systematics of classes and even more often than the systematics of phyla. It must be recommended at the very start not to introduce new descriptive names and not to resurrect forgotten ones (even though so instructed by the adoption in the Code of criteria distinguishing forgotten names from utilized ones). One such recommendation is already strongly reducing the number of descriptive names in use as a regular result. Another basis for suppressing descriptive names is discussed above as hemihomonymy. Names giving rise to nomenclatural confusion should be the first to be suppressed. On the contrary, if hemihomonymy does not arise, then such names may be stabilized by changing them into typified ones. The name of a class of pseudocoelomate worms, Kinorhyncha, is descriptive, and up until recently it has not been connected with any available generic name. It has been pointed out that the name of one of the genera of this class, *Trachydemus* (incidentally, this includes the biggest representatives of the class), is a junior homonym, and in this connection it was changed by Sheremetevskii (1974) to *Kinorhynchus,* which also changed the name of the class into a typified one. The question may arise, at what time is the name considered to be introduced into nomenclature, with the date of its publication within a particular coordination group or with the date of typification? It is apparent that the objective of the stabilization of nomenclature requires that priority in a given case be reckoned from the date of publication. This is to some degree analogous with cases where the Code permits the availability of a generic name published (up to a certain date [1930]) without including any nominal species in it. What we have been talking about opens one more route, albeit not a very effective one, to reduce the number of descriptive names and yet retain customary names.

The difficulties discussed above are, in my view, the most substantial ones on the pathway towards the regulation of the names of taxa of higher rank. Many others will probably arise, hopefully ones that are less serious and easier to overcome. It seems that the process of regulation of the nomenclature of higher rank taxa needs to begin with a system of recommendations on this theme, and actions conducive to a reduction in the number of descriptive names in use and the retention of customary names, as long as they do not cause confusion. Then, in the course of systematic revisions, new typified names will emerge and the number of descriptive ones will become still fewer; in this way typified names will emerge as equivalent alternatives to descriptive ones. Only after this (and the process will probably take several decades) will it be justifiable to raise the question about a more strict regulation of the nomenclature of higher taxa and a supplement of the Code with corresponding Articles.

Therefore, in the conclusion of this paper I would like to set forth a draft of a system of such recommendations in order that all who are interested in the improvement of zoological nomenclature can familiarize themselves with it, and to prepare a basis for further discussion concerning these questions.

A draft of recommendations for the regulation of the nomenclature of taxa of rank higher than superfamily

General features of the names of higher taxa

1. The proposals here do not have the force of the obligatory rules laid out in the Articles of the *International Code of Zoological Nomenclature* but have the force of recommendations.

2. The names of higher taxonomic categories are divided into typified and descriptive ones. A typified name is one that is formed from the stem of an available name of a nominal genus included in the taxon concerned, that generic name thereby being the nomenclatural type of the name of the higher category taxon. A descriptive name is one that is not connected with any available name of a nominal genus included in the given taxon. The coincidence of the stem of the name of a higher category taxon with the stem of the name of a nominal genus not included in that taxon does not make the name typified.

3. In taxonomic groups in which a standard compound ending is employed, for example -optera in insect systematics, -osauria in reptile systematics, -omonadida in flagellate systematics, etc., a name is considered typified if: (a) after removal of an ending, its stem coincides with the stem of the name of a genus included in the given taxon, (b) it itself, in its entirety, coincides with the stem of the name of a genus included in the given taxon. The generic name with which such a coincidence occurs is considered the nomenclatural type of that typified name.

Example. The name Coelurosauria comes from the generic name *Coelurus*, and the name Segnosauria from the generic name *Segnosaurus*: both names are considered typified and the respective generic names are considered the nomenclatural types of the names of the corresponding higher taxa (only in the first case the ending must be considered to be -osauria and in the second to be -ia).

If both coincidences listed above occur, and the author did not clearly designate the nomenclatural type (or it is not evident from the author's original text), then the nomenclatural type is established upon the first subsequent designation or upon the first change of ending that unambiguously identifies the nomenclatural type.

4. Within a taxon having a descriptive name, the proposal of a new genus with a name whose stem coincides with that of the name of the given taxon changes the taxon's name into a typified one, provided that the new generic name is available and is not a junior homonym.

Descriptive names

5. The application of a descriptive name is determined either only by the meaning (content) embodied in it, independent of the rank accorded to it, or only by the rank customarily accorded to it, independent of the meaning (content) embodied in it. In either case the author and date are retained through any changes in rank or content.

Example: In the time of Linnaeus, Insecta was considered a class, although later its content changed substantially in comparison with the original; in contrast, the meaning inherent in the name Bivalvia has changed very little over the same time span, while this taxon's rank has been raised substantially. In both cases we must place 'Linnaeus, 1758' after the name.

6. Descriptive names are available if they: (a) are expressly proposed for a taxon of specified rank and (b) are characterized as to content, as with a list of the subordinate taxa included in the named taxon, or are provided with a diagnosis allowing certain taxa of lower rank to be assigned to it, or are specifically proposed in place of another descriptive name.

7. Descriptive names are not available if they: (a) are first proposed in the synonymy of another available name (descriptive or typified), (b) are proposed conditionally or for a hypothetical group, (c) are proposed expressly in place of an available typified name, (d) are not either characterized as to content or provided with a diagnosis, or (e) are given without specifying the rank of the taxon for which the name is proposed.

8. It is categorically not recommended: (a) to introduce new descriptive names, (b) to utilize descriptive names employed by five or fewer authors in ten or fewer works during the last 50 years, and (c) to replace typified names by descriptive ones that are not generally accepted.

9. If a descriptive name has achieved wide usage, then the question of its retention may only be discussed in those cases where it has priority over a typified name for the same taxon.

10. Confusing typified names. If the stem of a descriptive name coincides with the stem of a name of a nominal genus not included in the given taxon, then the use of that name is undesirable.

11. In dividing a taxon that has a descriptive name into unequal parts of the same rank, it is recommended to give the newly created taxa typified names; the old

descriptive name, in case of its general acceptance, may be retained only for the larger of the created taxa or for a taxon of higher rank uniting the newly created ones.

12. In dividing a taxon that has a descriptive name into several equally-sized ones, or in any other case when it is difficult to determine how to apply the original name, it is recommended to give typified names to the newly created taxa. The original name may then be retained for a taxon of higher rank uniting the newly created ones.

13. In uniting two or more taxa that have descriptive names into a taxon of the same rank, the name of the united taxon is chosen according to the Principle of Priority, provided that the author does not wish to give the united taxon a typified name.

14. In uniting two or more taxa, one or more of which has a typified name, into a taxon of the same rank, it is recommended that the unified taxon have the typified name (or the oldest of the typified names if there are several), provided that this does not require a change in a widely used and generally accepted descriptive name. In the latter case, a typified name is introduced as an alternative to the descriptive one.

15. Homonyms of descriptive names. Of two or more homonymous names (i.e. identical in their stems, but based on different taxa), the one which was introduced earliest is retained, provided that it is not forgotten (point 8(b)) or that one of the more junior names is not widely used. It is recommended to change the rejected descriptive names to typified ones. If homonymy arises between a descriptive and a typified name, the descriptive one is subject to replacement regardless of priority.

16. Synonyms of descriptive names. Of synonymous descriptive names (i.e. applying to the same taxon), the oldest is subject to retention, provided that it is not forgotten (point 8(b)) or that this does not contradict the broad use of one of the more junior names. If a descriptive and a typified name are synonyms, then the descriptive one is retained if the following two conditions simultaneously apply: (1) it has priority over the typified one, (2) it is widely used for denoting the given taxon. The conservation of a descriptive name is not obligatory if authors prefer to make use of a typified name in their works.

Typified Names

17. The application of a typified name is determined only by its nomenclatural type, i.e. the type genus, the stem of whose name is the basis for the formation of the name of the higher taxon.

18. A typified name is considered available if it is: (a) expressly proposed for a definite taxon having a specified rank, (b) based on a generic name that is considered valid at the time of proposal of the named taxon or that fulfils point 4, (c) accompanied by a diagnosis or indication (points 20, 21). A name is also available if it is proposed for a taxon considered at the time of its proposal as belonging to the plant kingdom, and in that context meeting the conditions of a validly published name according to the *International Code of Botanical Nomenclature*.

19. A typified name of a higher category taxon published before 1900 in not completely Latinized form is available with its original author and date, but in the appropriate Latinized form, if it meets the criteria of point 18.

20. Indications applicable to typified names of higher taxa are: (1) a bibliographic reference to an earlier published diagnosis irrespective of the rank of the taxon for which the cited diagnosis was published, (2) a characterization of the contents of the named taxon, i.e. an enumeration of the subordinate taxa that go into the newly proposed one, (3) a proposal of a new name expressly as a replacement for an available

name (typified or descriptive) already in existance, (4) publication of a typified name in the synonymy of a descriptive one (but not of a typified one).

21. Up until a date expressly established upon the adoption of this draft, the formation of a new typified name of a higher taxon on the basis of the name, valid at that time, of a nominal genus is considered an indication.

22. Upon the introduction of a new typified name as a replacement for a previously existing descriptive one, and also upon the publication of a new typified name in the synonymy of a descriptive one, a precise designation of rank of the taxon is mandatory.

23. A typified name is not considered available if it: (a) is based on an unavailable generic name, (b) is proposed conditionally or for a hypothetical group, (c) is presented without an indication of the rank of the taxon for which it is proposed, (d) is published in the synonymy of a typified name, (e) after a date to be established is unaccompanied by a diagnosis or an indication.

24. The categories to which typified names of higher taxa belong are divided into three groups — the phylum-group, the class-group and the order-group. For names belonging to a particular category, fixed standard endings are recommended.

25. The phylum-group includes the following categories (recommended standard endings given in parentheses): superdivision (-ozoi), division (-ozoides), subdivision (-ozoidi), superphylum (-ozoacei), phylum (-ozoes), subphylum (-ozoines), infraphylum (-ozoae).

26. The class-group includes the following categories (recommended standard endings given in parentheses): superclass (-idees), class (-iodes), subclass (-iones), infraclass (-ioni).

27. The order-group includes the following categories (recommended endings given in parentheses): cohort (-omorphi), superorder (-iformii), order (-iformes), suborder (-oidei), infraorder (-oinei).

28. Categories are coordinated within a group; i.e. all the categories within a group have equal status in nomenclature and are subject to the same recommendations. A name published for a taxon in any category within a group and based on a given genus is thereby available with its original author and date for all taxa within that group that are based on the same type genus, with corresponding changes in the ending.

29. Raising or lowering the rank of a taxon beyond the limits of the group in which its name was proposed amounts to the proposal of a new taxon based on the same generic name in another group.

30. The name of a higher rank taxon with an ending not corresponding to the recommended one for taxa of the given category is available with its original author and date, but with the corresponding corrected ending.

31. Until a date expressly established upon the adoption of this draft, the utilization of different standard endings in common use in systematic groups is allowed, but it is more desirable to use the recommended ones (points 25, 26, 27).

32. The appraisal of the group membership of a rarely used or undefined category (e.g. stirps, series, etc.) and also of categories used in clearly unusual senses is resolved by the first subsequent determination of their usage.

(1) All categories higher than superfamily and lower than order belong to the order-group.

(2) All categories higher than phylum and lower than subkingdom belong to the phylum-group.

33. The name of a higher rank taxon is formed by adding to the stem of the name of the type genus the special standard ending for each category. The process of name formation is the same as for family-group names. All names are capitalized.

34. A taxon formed by uniting different taxa of the same group is given the oldest of the valid names of the taxa of the same group that make it up, with a corresponding change of ending if required.

35. If a taxon of any group is divided into subordinate taxa of the same group, then the one of them that contains the type genus bears the same name as the divided taxon, but with a corresponding change in ending. Such a taxon is called the nominate subordinate taxon.

36. The name of a taxon of any group is not available if the name of its type genus is a junior homonym.

37. If the name of a type genus is a junior subjective synonym, then the name of the higher taxon based on it is retained, but if it is a junior objective synonym, then it is changed to a name formed from the senior synonym.

38. The names of higher taxa based upon different type genera, but which, due to the similarity of the names of these genera, are identical in spelling, are considered homonymous. Homonyms are subject to elimination by minimal changes in the stem of the more junior of the homonyms, whereby the first publication of such changes is recognized as valid.

39. Of two synonymous typified names (i.e. each applying to a taxon containing the type genus of the other), the more senior one is considered valid regardless of the original ranks of the taxa within the group. The same applies to the presence of several synonymous typified names.

The relative priority of simultaneously published synonymous names belonging to the same group is resolved by the first reviser.

40. If a name was originally introduced as a descriptive one, but was later typified, then it is utilized and competes with other names in respect to priority with its original author and date. If a descriptive name was introduced after a date expressly established upon the adoption of this draft proposal, then after typification it receives the name of the author who typified it and the date of typification, and with this date it competes in priority with other names.

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Table 1. Standard endings for categories of the phylum-group according to various authors

Category	Poche (1911)	Rohdendorf (1977)	Present proposal
Superdivision	—	—	-ozoi
Division	—	—	-ozoides
Subdivision	—	—	-ozoidi
Supersuperphylum	-acea	—	—
Superphylum	-aceae	-ozoidea	-ozoacei
Subsuperphylum	-acei	—	—
Phylum	-aria	-ozoa	-ozoes
Supersubphylum	-ariae	—	—
Subphylum	-arii	-ozoina	-ozoines
Infraphylum	—	-ozoines	-ozoae

Table 2. Standard endings for categories of the class-group according to various authors

Category	Poche (1911)	Rohdendorf (1977)	Present proposal
Supersuperclass	-omorpha	—	—
Superclass	-omorphae	-odea	-idees
Subsuperclass	-omorphi	—	—
Class	-oidea	-oda	-iodes
Subclass	—	-ona	-iones
Infraclass	—	-ones	-ioni

Table 3. Standard endings for categories of the order-group according to various authors

Category	Berg (1932)	Pearse (1936)	Stenzel (1950)	Hubbs (1953)	Rohdendorf (1977)	Present proposal
Cohort	—	—	—	—	-iformes	-omorphi
Superorder	—	—	-ica	-oilei	-idea	-iformii
Order	-iformes	-ida	-ida	-oidei	-ida	-iformes
Suborder	-oidei	-ina	-ina	-oinei	-ina	-oidei
Infraorder	—	—	—	—	-omorpha	-oinei

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Case 2750

Epizoanthus Gray, 1867 (Cnidaria, Anthozoa): proposed conservation

J.S. Ryland & A. Muirhead
School of Biological Sciences, University College of Swansea, SA2 8PP, U.K.

Abstract. The purpose of this application is to conserve the name *Epizoanthus* Gray, 1867 for a widely distributed genus of ZOANTHIDEA. The name is threatened by the unused senior synonym *Sidisia* Gray, 1858. Species of *Epizoanthus* are well known for their epizoic associations with other invertebrates, especially pagurid crabs.

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1. The name *Sidisia* was introduced by Gray (1858a, p. 532), with type species *Sidisia barleei* by monotypy. Gray quoted a letter from Barlee, who found the original specimens and who considered them to be *Dysidea? papillosa* Johnston, 1842. Gray, however, considered them to be a distinct taxon: 'the animal described by Mr. Barlee evidently belongs to quite a different group: they are free;... I therefore propose to give the name of *Sidisia*, which may be characterised by the emission of buds on the surface of the cylindrical body.'

2. In a second paper (1858b), Gray quoted a second correspondence from Barlee in which *Sidisia barleei* was described as having a sessile form as well as the free form described by Gray (1858a). This then necessitated that Gray should distinguish *Sidisia* from *Corticifera* Leseuer, 1817, which he did with the diagnosis: '*Sidisia* is cylindrical, more or less branched, and free, or only attached by its base to a shell or rock'.

3. In 1867 Gray introduced the family-group name ZOANTHIDAE (ZOANTHIDEA sensu Hyman, 1940) with two subfamilies, ZOANTHI SABULIFERI and ZOANTHI MALACODERMA. Within the subfamily ZOANTHI SABULIFERI he included his 1858 genus *Sidisia*. He also erected a new genus *Epizoanthus* (1867, p. 237) for *Dysidea? papillosa* Johnston. Gray (1867, p. 236) maintained *Sidisia* as a separate genus, with the type species *S. barleei* for which were given the synonyms *Zoanthus couchii* var. Holdsworth, 1858 (p. 560), and *Z. couchii* var. *liber* Gosse, 1860 (p. 297).

4. Subsequent authors (Verrill, 1882, 1885; Hertwig 1882, 1888) recognised Gray's 1867 genus, ascribing their relevant specimens to *Epizoanthus*.

5. In a major review of the Zoanthae [i.e. ZOANTHIDEA], Haddon & Shackleton (1891, p. 636) included *Sidisia* among the synonyms of *Epizoanthus* Gray, 1867, even though they recognised that *Sidisia* had priority. Their justification for doing this was that 'it [*Sidisia*] was solely erected for a species which is only a variety of an older form, and the name has only been occasionally retained for this variety of that particular species, whilst *Epizoanthus* has been universally adopted for the more typical forms of this genus. Both names were originated by Gray and we have therefore less hesitation in keeping to the latter'.

6. In their résumé of the British ZOANTHIDEA, Haddon & Shackleton (1891, p. 627) named *E. incrustatus* (Düben & Koren) as type species of *Epizoanthus* Gray, a mistake copied recently by Manuel (1981). This is incorrect: *Mammillifera incrustata* Düben &

Koren, 1847 is not an originally included species and *Dysidea? papillosa* is the type species of *Epizoanthus* by monotypy. *M. incrustata* is its junior subjective synonym (see Haddon & Shackleton, 1891, p. 636).

7. Delage & Hérouard (1901, p. 664) used *Epizoanthus* Gray as the basis for their family EPIZOANTHIDAE (as EPIZOANTHINAE).

8. In 1913 Lwowsky published a review of the genus *Sidisia*, reinstating it in preference to *Epizoanthus*. Carlgren, however, in an appendix to his 1913 paper, dismissed Lwowsky's reintroduction of *Sidisia*, agreeing precisely with Haddon & Shackleton's (1891) rationale as quoted in para. 5 above. At the same time, however, Carlgren disagreed with Haddon & Shackleton's synonymising of *Sidisia barleei* Gray with *Epizoanthus incrustatus* (Düben & Koren, 1847), one of the points on which Lwowsky's case was based.

9. *Sidisia* has never been used since Lwowsky's (1913) paper and all authors subsequently have used only *Epizoanthus* to encompass all forms which would formerly have been referred to either *Sidisia* or *Epizoanthus*. Accordingly, *Epizoanthus* has become a genus well known to marine biologists of all specialities. The eponymous family name EPIZOANTHIDAE has also been used in all the major texts (e.g. Hyman, 1940; Herberts, 1987) and the generic name *Epizoanthus* has been used in a number of additional works including Pax (1957), George & George (1979) and Muirhead, Tyler & Thurston (1986). A further five references are held by the Commission Secretariat.

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Sidisia* Gray, 1858 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Epizoanthus* Gray, 1867 (gender: masculine), type species by monotypy *Dysidea? papillosa* Johnston, 1842;

(3) to place on the Official List of Specific Names in Zoology the name *papillosa* Johnston, 1842, as published in the binomen *Dysidea? papillosa* (specific name of the type species of *Epizoanthus* Gray, 1867);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Sidisia* Gray, 1858, as suppressed in (1) above.

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Case 2707

Amphiporus Ehrenberg, 1831 (Nemertea): proposed designation of *Planaria lactiflorea* Johnston, 1828 as the type species

Ray Gibson
School of Natural Sciences, Liverpool Polytechnic, Byrom Street,
Liverpool L3 3AF, U.K.

Frank B. Crandall
Turkey Run Research Institute, 900 Turkey Run Road, McLean,
Virginia 22101, U.S.A.

Abstract. The purpose of this application is the designation of *Planaria lactiflorea* Johnston, 1828 as the type species of the widely used nemertean genus *Amphiporus* Ehrenberg, 1831. The original type species by monotypy, *Polystemma albicans* Ehrenberg, 1828, has not been redescribed since 1831 and its status is doubtful, but *A. lactifloreus* (Johnston) is well characterized and is typical of *Amphiporus* as understood.

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1. The genus *Amphiporus* Ehrenberg, 1831 (p. 63) was originally established with one included species: '*A. albicans* Nov. spec. Phytozoa Tabula IV. fig. II *Polystemma albicans*'. Ehrenberg had previously (1828, pl. 4, fig. 2, a–e) illustrated and named *Polystemma albicans*, but he did not describe the species until the text was published three years later; it is the type species of *Amphiporus* by monotypy. The second species of *Polystemma* illustrated in 1828, *P. adriaticum*, was retained in that genus in 1831; while it is clearly a nemertean the name has remained a nomen dubium.

2. *Amphiporus albicans* was found among corals in the Red Sea. Although the external features were described by Ehrenberg virtually no data on internal morphology were provided. Several authors have subsequently referred to the species (see below and discussion in Gibson & Crandall, 1989, pp. 454–455), but the name has not been applied to a recognized living taxon since Ehrenberg (1831) and there is no material extant.

3. Örsted (1844, p. 93) listed *Polystemma (Amphiporus) allicans*, mis-spelling the specific name, and Diesing (1850, p. 250) mentioned *Omatoplea albicans*, wrongly giving himself as the author (*Omatoplea* is an emendation of *Ommatoplea* Ehrenberg, 1828). McIntosh (1874, p. 155), in discussing taxa synonymous with *Planaria lactiflorea* Johnston, 1828 (p. 489), commented that *A. albicans* resembled *Nemertes pulchra* Johnston, 1837 (p. 536) in several external features. Hubrecht (1879) and Bürger (1895) uncertainly, and Carus (1885) positively, listed *A. albicans* as synonymous with *A. pulcher* (Johnston, 1837), but Joubin (1894) regarded *A. albicans* as a junior synonym of *Fasciola rosea* Müller, 1774 (p. 58). Bürger (1904), who recognized two subspecies of *A. pulcher*, considered *A. roseus* sensu Verrill (1892) as synonymous with *A. pulcher pulcher*. The taxonomic status of *A. roseus* is obscure (Gibson &

Crandall, 1989). Berg (1972a) transferred *A. pulcher* to the genus *Nipponnemertes* Friedrich, 1968 (type species *Amphiporus drepanophoroides* Griffin, 1898).

4. Since all that can be determined from Ehrenberg's (1828–1831) original work is that *Amphiporus albicans* is a nemertean, and possibly an enoplan, of uncertain systematic position, none of the synonymies suggested above, based entirely upon superficial resemblances of the taxa described, can be justified. We (Gibson & Crandall, 1989, p. 455) have concluded that *A. albicans* must be regarded as a nomen dubium.

5. *Amphiporus* is a long-standing and well known generic name, but it refers to a nominal taxon which is not defined by an adequately described type species (Gibson, 1985; Norenburg, 1986; Gibson & Crandall, 1989). This means that its relationship to other genera and the generic placement of species lack a sound basis, and discussion of the family AMPHIPORIDAE McIntosh, 1874 (p. 155) is similarly compromised.

6. Among the nominal species currently included in *Amphiporus* (see Gibson & Crandall, 1989) the oldest established is *Planaria lactiflorea* Johnston, 1828 (p. 489), first placed in *Amphiporus* by McIntosh (1873–1874). McIntosh (1873, p. 10; 1874, p. 158) regarded an earlier nominal taxon, *Lumbricus oxyurus* Pallas, 1766 (p. 146), as perhaps synonymous with *A. lactifloreus* (Johnston, 1828); he rejected the specific name *oxyurus* as 'objectionable'. Pallas' (1766) original description (pp. 146–147, pl. 11, figs. 7 and 8), though including some data on internal morphology, was considered to be totally incorrect by Bürger (1895, p. 7) and he rejected McIntosh's possible synonymy between *L. oxyurus* and *A. lactifloreus*. *L.oxyurus* was most likely an enoplan but assignment to a more precise taxon is impossible. The last known mention of *L. oxyurus* in the literature, as questionably synonymous with *Amphiporus lactifloreus*, was by Bürger (1904, p. 38). None of Johnston's material is in existence, but the anatomy and taxonomy of *A. lactifloreus*, the name used for the taxon by more than 100 authors in more than 300 publications since McIntosh's (1873–1874; pl. I; p. 156; pl. x) first usage, have been redescribed by Berg (1972b). *Amphiporus lactifloreus* is widely distributed and well known, with a range extending from the Mediterranean and northern coasts of Europe to the Atlantic and Arctic coasts of North America north of Cape Cod (Gibson, 1982; Gibson & Crandall, 1989). It is typical of *Amphiporus* as currently treated, and we propose that it be designated as the type species in place of the indeterminate *Polystemma albicans* Ehrenberg, 1828, his *A. albicans* of 1831.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Amphiporus* Ehrenberg, 1831, and to designate *Planaria lactiflorea* Johnston, 1828 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Amphiporus* Ehrenberg, 1831 (gender: masculine), type species by designation in (1) above *Planaria lactiflorea* Johnston, 1828;

(3) to place on the Official List of Specific Names in Zoology the name *lactiflorea* Johnston, 1828, as published in the binomen *Planaria lactiflorea* (specific name of the type species of *Amphiporus* Ehrenberg, 1831).

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Case 2736

Haustator Montfort, 1810 (Mollusca, Gastropoda): proposed conservation

Richard E. Petit
P. O. Box 30, North Myrtle Beach, South Carolina 29582, U.S.A.

Jacques Le Renard
Muséum national d'Histoire naturelle, Paris, France

Abstract. The purpose of this application is the conservation of the turritellid generic name *Haustator* Montfort, 1810 by the suppression of *Aculea* Perry, 1810, an unused senior subjective synonym.

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1. In 1810 George Perry proposed the generic name *Aculea* in a little-known work which was the subject of a paper by Mathews & Iredale (1912). Except for being mentioned by Mathews & Iredale, *Aculea* has been overlooked or ignored by subsequent authors.

2. *Aculea* Perry, 1810 (April 1, *Arcana* plate XV [pages and plates unnumbered; numbering system devised by Mathews & Iredale, 1912]) has as type species by monotypy *Aculea angulata* Perry, 1810. We consider *A. angulata* to be a junior subjective synonym of *Turritella imbricataria* Lamarck, 1804 (p. 216).

3. *Haustator* Montfort, 1810 (p. 211) has as type species by original designation *Haustator gallicus* Montfort, 1810 (p. 183), universally considered to be a junior subjective synonym of *Turritella imbricataria*. Therefore, *Aculea* and *Haustator* are subjective synonyms. The exact date of publication of Montfort's 1810 work is not known, but Iredale (1915, p. 457) has shown that it was reviewed in the *Göttingische Gelehrte Anzeigen* (**2**(2): 847) on May 28, 1810. Without evidence of earlier publication of *Haustator*, *Aculea* has priority.

4. *Haustator* has been used as a genus-level taxon in the family TURRITELLIDAE by numerous authors. A listing of 15 representative references during the past 50 years has been given to the Commission Secretariat.

5. The only mentions of *Aculea* in the literature since its introduction, other than in nomenclators and the listing by Mathews & Iredale, have been by Perry himself in his *Conchology* (1811), and in the synonymy of *Turritella* Lamarck, 1799 (H. & A. Adams, 1854, p. 351 and Herrmannsen, 1852, p. 3) based on its usage by Perry (1811).

6. Although we hold the opinion that adherence to strict priority is the only proper way to achieve stability, this seems to be an exceptional case, the two taxa having been introduced almost simultaneously. In fact, it is quite possible that Montfort's work may eventually be shown to have been published earlier. As *Haustator* Montfort, 1810 has been in use for over 180 years whereas *Aculea* Perry, 1810 has not been used, it seems desirable to suppress *Aculea*.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Aculea* Perry, 1810 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Haustator* Montfort, 1810 (gender: masculine), type species by original designation *Haustator gallicus* Montfort, 1810 (a junior subjective synonym of *Turritella imbricataria* Lamark, 1804);

(3) to place on the Official List of Specific Names in Zoology the name *imbricataria* Lamarck, 1804, as published in the binomen *Turritella imbricataria* (senior subjective synonym of *Haustator gallicus* Montfort, 1810, the type species of *Haustator* Montfort, 1810);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Aculea* Perry, 1810, as suppressed in (1) above.

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Case 2769

Laeocochlis Dunker & Metzger, 1874 (Mollusca, Gastropoda): proposed conservation as the correct spelling

David Heppell

Department of Natural History, National Museums of Scotland, Edinburgh EH1 1JF, U.K.

Abstract. The purpose of this application is to establish *Laeocochlis* Dunker & Metzger, 1874 as the correct spelling of the generic name for a European triphoroid mollusc. The valid name of the type species is *L. macandraeae* (A. Adams, 1856).

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1. Dunker & Metzger (1874a (January), p. 7) described a new genus and species of marine gastropod as *Laiochochlis pommeraniae*, from 106 fathoms off the coast of southern Norway. The authors gave a more extensive description and provided an illustration later the same year (1874b, p. 146, pl. 7, fig. 3). This time the generic name was spelled *Laeochochlis* in the text and *Laiocochlis* on the plate. The name appeared as *Laeocochlis* in the index to the volume. Thus within one year four spellings had appeared.

2. An account of the zoological results of the voyage was published in the double volume 2–3 of the *Jahresbericht der Kommission zur wissenschaftlichen Untersuchung der deutschen Meere*. This included a description of the new genus and species (Dunker & Metzger, 1875, p. 258, fig. 3 (p. 264), pl. 6, fig. 3); the name was spelled *Laeocochlis* both in the text and on the plate. The spelling *Laeocochlis* was also used by Metzger (1875a, p. 249; 1875b, p. 263), listing mollusc species found on the expedition, in two further papers in the same volume. Both the *Bibliotheca historico-naturalis*... (edited by Metzger, 1875c, p. 24) and the *Royal Society catalogue of scientific papers, 1874–1883* (1891, p. 753) recorded the Zoologische Ergebnisse as appearing in the *Jahresbericht* in 1875 but there is evidence that the work was issued as a separate a year earlier (see Taschenberg, 1887, p. 864). The date 1874 was given for the work by Norman (1879, pp. 53, 56, 62; 1899, p. 152), and was followed by Dautzenberg & Fischer (1912, p. 175) on the evidence of Norman. The spelling *Laeocochlis* was also used by Metzger & Dunker (1875, p. 183) in a list of all the mollusc species found on the expedition.

3. Martens (1875, p. 116) doubted the validity of the genus, regarding it as merely a sinistral *Trichotropis* Broderip & Sowerby, 1829. In his paper he commented on the various spellings used in the text of the paper by Dunker & Metzger (1874b), and proposed the use of *Laeocochlis* as the correct Latin orthography. Kobelt, the editor of both the *Nachrichtsblatt* (cf. 1874a) and the *Jahrbücher* (cf. 1874b) of the Deutsche Malakozoologische Gesellschaft, pointed out in a footnote to Martens's comment that the spelling *Laiocochlis* was intended, as that was what the authors had used both on the plate and in their submitted manuscript. The incorrect spelling *Laeochochlis* (1874b, text) was a typographical error. Only *Laiocochlis* was used in indexing Martens's paper (1875, p. viii).

4. The earliest spelling *Laiochochlis* has never been adopted by subsequent workers. Most subsequent usage favoured the later spelling *Laeocochlis*, but use of the spelling *Laiocochlis* is not unknown. Authors using *Laeocochlis* include Sars (1878, p. 190), Norman (1879, pp. 53, 62; 1899, p. 152), Fischer (1884, p. 684), Dautzenberg & Fischer (1912, p. 175), Thiele (1929, p. 218), Thorson (1941, p. 46), Óskarsson (1962, p. 69), Clarke (1974, p. 6), Høisæter (1986, p. 91) and Graham (1988, p. 478). Authors using *Laiocochlis* include Wenz (1940, p. 782), Korobkov (1960, p. 159), Nordsieck (1968, p. 73) and Vaught (1989, p. 38); and *Laiocochlis* is the type genus of the subfamily LAIOCOCHLIINAE [sic] Golikov & Starobogatov (1987, p. 28). When author and date are cited, both spellings of the name, *Laeocochlis* and *Laiocochlis*, are ascribed to 'Dunker & Metzger, 1874'. Other variants of the generic name, such as *Laeococchlias*, *Laeocochlys*, *Laevicochlis* and *Leiocochlis*, are known, but these are incorrect subsequent spellings and have no nomenclatural status. The name *Laeocochlis* derives from the Greek *laios* (left) and *kochlos* (spiral shell) (Jaeger, 1955, pp. 61, 135) and, as Martens (1875) indicated, was the more correct Latin orthography, the form-*cochlis* being a feminine diminutive ending. *Laiocochlis* derives more directly from the Greek and, according to Kobelt (see para. 2), was the authors' originally intended spelling. In view of the lack of stability caused by variant spellings used by the original authors in different papers published in the same year, it is now proposed that the spelling that has enjoyed the greatest usage, including that of the present day, namely *Laeocochlis*, be formally adopted.

5. The name of the type species, *L. pommeraniae* Dunker & Metzger, 1874, is not in current use, as it is a junior subjective synonym of *Triforis macandraeae* A. Adams (1856, p. 1). That name has been less used than the emended forms *macandreae*, *macandrei* or *macandrewae*, and has frequently been wrongly attributed to H. Adams, but it is not an incorrect original spelling (Article 32c of the Code). An extensive synonymy and bibliography is given in Dautzenberg & Fischer (1912, pp. 175–176). Martens (1876, p. 142), followed by Sars (1878, p. 190), synonymized both these Recent nominal taxa with the Crag fossil *Cerithium granosum* Wood, 1848, and most contemporary workers have accepted the synonymy. Wood's earliest use of *granosum* (1842, p. 538) was a nomen nudum, but he later (1848, p. 73, pl. 8, fig. 9) provided a description and illustration. Unfortunately *Cerithium granosum* is several times preoccupied, the most senior homonym being *C. granosum* Borson, [1822] (p. 327). The valid name of the type species is therefore *L. macandraeae* (A. Adams, 1856).

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that *Laiochochlis*, *Laeochochlis* and *Laiocochlis* are incorrect spellings of *Laeocochlis* Dunker & Metzger, 1874;

(2) to place on the Official List of Generic Names in Zoology the name *Laeocochlis* Dunker & Metzger, 1874 (January) (gender: feminine), type species by monotypy *Laiochochlis pommeraniae* Dunker & Metzger, 1874 (a junior subjective synonym of *Triforis macandraeae* A. Adams, 1856);

(3) to place on the Official List of Specific Names in Zoology the name *macandraeae* A. Adams, 1856, as published in the binomen *Triforis macandraeae* (senior subjective synonym of the specific name of *Laiochochlis pommeraniae* Dunker & Metzger, 1874, the type species of *Laeocochlis* Dunker & Metzger, 1874);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
   (a) *Laiochochlis* Dunker & Metzger, 1874 (ruled in (1) above to be an incorrect spelling of *Laeocochlis* Dunker & Metzger, 1874);
   (b) *Laeochochlis* Dunker & Metzger, 1874 (ruled in (1) above to be an incorrect spelling of *Laeocochlis* Dunker & Metzger, 1874);
   (c) *Laiocochlis* Dunker & Metzger, 1874 (ruled in (1) above to be an incorrect spelling of *Laeocochlis* Dunker & Metzger, 1874).

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Case 2732

Ceratites nodosus (Cephalopoda, Ammonoidea): proposed attribution of the specific name to Schlotheim, 1813, and proposed designation of a lectotype

Max Urlichs

Staatliches Museum für Naturkunde Stuttgart, Rosenstein 1, D-7000 Stuttgart, Germany

Abstract. The purpose of this application is to conserve the name of the Triassic ammonite *Ceratites nodosus* (Schlotheim, 1813) in its current usage by designation of a lectotype from Schlotheim's original collection.

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1. Bruguière (1789, p. 43) established the species *Ammonites nodosa* and described it referring to two earlier figures: Baier (1708, p. 63, pl. 4, fig. 2) and Bourguet (1742, pl. 39, fig. 262). Bruguière (1789, p. 43) regarded the specimen figured by Baier as a variety of his *Ammonites nodosa*: 'Baierus a représenté une varieté de cette Ammonite, qui consiste uniquement dans la forme des tubercles du rang le plus intérieur, ils sont lenticulaires comme les autres et à peu près du même volume qu'eux'. Later it was identified by Quenstedt (1849, p. 133) as *Ammonites perarmatus* Sowerby, 1822, being the type species of *Euaspidoceras* Spath, 1931 (see Opinion 1456, BZN **44**: 212). It follows that for the interpretation of *Ammonites nodosa* Bruguière only Bourguet's (1742) figure should be taken into account. This figure was redrawn from Scheuchzer (1718, fig. 25), whose specimens form the type series of *Ammonites nodosa* Bruguière, as pointed out by Rieber & Tozer (1986, p. 830).

2. Schlotheim (1813, p. 100) used the name *Ammonites nodosus* but did not attribute it to any author nor did he describe the species. In the synonymy he listed a number of pre-Linnaean works and also Bosc (1802) who had referred to Bruguière (1789). Subsequently, Schlotheim (1820, p. 67) again did not indicate the author and described *Ammonites nodosus* as being characterized by the following features: ceratitic suture, double row of nodes (marginal and lateral) and a great variation in size — a description which includes all *Ceratites* species in current usage except those of the subgenera *Discoceratites* and *Gymnoceratites*. Three years later Schlotheim (1823, pl. 32, fig. 1) figured a specimen of *Ammonites nodosus* which was refigured by Urlichs & Mundlos (1987, fig. 10). The Schlotheim collection of '*Ammonites nodosus*' in the Museum für Naturkunde, Berlin, was recently examined by Urlichs & Mundlos (1987, p. 9) who demonstrated that *Ammonites nodosus* as described by Schlotheim in 1813 and 1820 is a mixture of at least 15 species of *Ceratites* in current usage.

3. The genus *Ceratites* was established by de Haan (1825, p. 39) with four included species (pp. 156–158): *Ammonites radiatus* Bruguière, 1792; *Ammonites nodosus* Bruguière, 1789; *Ceratites cinctus* sp. nov. (p. 157); and *Ammonites henslowi* J. Sowerby, 1820. De Haan did not designate any of these four species as the type species. Subsequent workers placed in the genus *Ceratites* all ammonoids with ceratitic

sutures including species from diverse genera and even families. Two of the four species originally included in *Ceratites* by de Haan are nowadays referred to other genera: *Ceratites radiatus* (Bruguière) = *Acanthodiscus radiatus*; *Ceratites henslowi* (Sowerby) = *Merocanites henslowi.*

4. In describing the nominal species *Ceratites nodosus*, de Haan included a number of taxa that are today assigned to different species and even genera. He listed in the text synonyms which are today assigned to the following species and genera:

Knorr & Walch (1773, part 2, pl. 1A, figs. 4–5, pl. D3, fig. 5) = *Ceratites* sp. indet.

Ammonites nodosa Bruguière = *Ceratites (Doloceratites) robustus robustus* Riedel, 1916, in current usage (see Urlichs & Mundlos, 1987, p. 9).

Nautilus undatus Reinecke, 1818 = *Ceratites (Ceratites) nodosus* Schlotheim (see Urlichs & Mundlos, 1987, p. 11).

Ammonites plicomphalus Sowerby, 1822 = *Subcraspedites plicomphalus*, type species of the genus *Subcraspedites* Spath, 1924.

5. The specimen of *Ceratites nodosus* described and measured by de Haan (1825, p. 157) is unfortunately missing (pers. comm. Ph. J. Hoedemaeker, Leiden, 1989). De Haan's Latin description of *Ceratites nodosus* reads (in translation): 'Test discoid with three subinvolute rounded whorls and with ribbed flanks, and widely spaced ribs on the last whorl diminishing towards the venter; rounded, smooth venter in adults, sulcate venter in juveniles'. This description corresponds with current usage of *Ceratites (Ceratites) nodosus* following Philippi's revision in 1901 (see para. 6 below), but does not correspond with the type series of *C. nodosus* (Bruguière).

6. The first author to describe a wide range of *Ceratites* species was Philippi (1901). He discussed (p. 410) Scheuchzer's figure on which *Ammonites nodosa* Bruguière was based, saying that the fossil was drawn inexactly in Scheuchzer's book. The lobes and saddles were correctly figured except that the saddles were distinctly crenulated in contrast to the original specimen. Furthermore, the nodes, especially the umbilical nodes, were too strongly figured, resembling those of *Aspidoceras*. Philippi (1901, p. 413) regarded Schlotheim's figure (1823, pl. 31, fig. 1) as typical of *Ceratites nodosus*, which differs from Scheuchzer's figure, type specimen of *C. nodosus* Bruguière: 'Als Typus des *Ceratites nodosus* sind nach Schlotheim's Figur, die ein wohnkammerloses Exemplar darstellt, grosse, mässig involute Formen mit weit auseinanderstehenden, wulstigen, auf der letzten Windung nicht gespaltenen Rippen und breitem, wenig gewölbtem Rücken aufzufassen'. Schlotheim's specimen (1823, pl. 31, fig. 1) of *Ammonites nodosus* was recently redetermined and figured as *Ceratites (Acanthoceratites) spinosus spinosus* Philippi, 1901 (p. 404) by Urlichs & Mundlos (1987, fig. 10). Additionally, Philippi (1901, p. 413, pl. 46, fig. 1) described and figured as *Ceratites nodosus* a specimen very similar in dimension and sculpture to Schlotheim's figure of *Ammonites nodosus*. This specimen, however, differs from Schlotheim's (1823) *Ceratites nodosus.*

7. The first author to select a type species for *Ceratites* was J.P. Smith (1904, p. 382) who wrote 'Type. — *Ceratites nodosus* Bruguière, figured by de Haan in his *Monographiae Ammoniteorum et Goniatiteorum Specimen*, 1825, p. 39'. However, on the page cited only the diagnosis of the genus *Ceratites* is given and no figure is added. The four species assigned to this genus are decribed on pp. 156–158 of de Haan's book.

8. Spath (1934, p. 477) suggested that the specimen of *Ceratites nodosus* figured by Philippi (1901, pl. 46, fig. 1) 'may be considered to be the neotype'. This specimen was

destroyed in Strasbourg (pers. comm. J.C. Gall, 1984). This neotype designation, even had it been the earliest, does not fulfil the qualifying conditions of Article 75d of the Code in that Spath did not explain steps taken to find Scheuchzer's original specimen, did not explain whether or not the proposed neotype was consistent with Scheuchzer's figure, and designated as neotype a specimen from Ballbronn (Alsace) which is far distant from the type locality of Wolfenbüttel (Lower Saxony).

9. Recently, Rieber & Tozer (1986) reported the discovery of three of Scheuchzer's specimens that eventually provided the definition of *Ceratites nodosus*. They designated one of these specimens (no. L/1651 in the collections of the Paläontologisches Institut und Museum der Universität Zürich) as lectotype of *Ceratites nodosus* (Bruguière). This specimen is conspecific with *Ceratites (Doloceratites) robustus robustus* Riedel, 1916 (see Rieber & Tozer, 1986, p. 833; Urlichs & Mundlos, 1987, fig. 14). Following the discovery of this type specimen, attempts have been made to sort out the problem. Rieber & Tozer (1986) gave priority to the type specimen. This would cause great confusion since it would necessitate taxonomic revision within the genus *Ceratites* for the following reasons:

a). *Ceratites (Doloceratites) robustus robustus* becomes a junior subjective synonym of *Ceratites (Ceratites) nodosus* and the subgenus *Doloceratites* becomes a junior subjective synonym of the subgenus *Ceratites*.

b). The name *Ceratites nodosus* no longer applies to a Lower Ladinian species for which it has consistently been used since 1901 and is transferred to an Upper Anisian species.

c). The species currently known as *Ceratites nodosus* must be renamed *Ceratites undatus* Reinecke, 1818.

d). Confusion would be caused in biostratigraphy by transferring the *nodosus* Zone from the Lower Ladinian to the Upper Anisian.

10. There are three options for the designation of the type specimen of *Ammonites nodosus*:

a). Scheuchzer's original. Excellent quality but poorly described and not properly figured until 1986; proposed as lectotype by Rieber & Tozer (1986, p. 831).

b). Schlotheim's (1823) figured specimen. It is only a phragmocone and was not properly figured until 1987; it was thought by Philippi (1901) to be typical of *Ceratites nodosus*.

c). One of Schlotheim's other specimens of *Ammonites nodosus*. Some are good specimens, but not figured until 1987; Urlichs & Mundlos (1987, p. 7, fig. 1) proposed as lectotype specimen no. 1.4 in the Schlotheim collection, registered as no. C785 at the Museum für Naturkunde an der Humboldt Universität, Berlin.

Options a) and b) are substantially different from current usage of the nominal taxon *Ceratites nodosus*. In contrast, Option c), although substantially different from Scheuchzer's figured specimen, is in conformity with current usage in recent papers, e.g. Busse (1970, p. 142), Hagdorn & Mundlos (1983, p. 387) and Heller & Zeiss (1972, p. 37). A representative list of 11 further recent papers with this current usage is held by the Commission Secretariat.

11. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:

  (a) to suppress the specific name *nodosa* Bruguière, 1789, as published in the binomen *Ammonites nodosa*, and other uses of that name before the publication of *Ammonites nodosus* Schlotheim, 1813 for the purposes of both the Principle of Priority and the Principle of Homonymy;
  (b) to set aside all previous fixations of type specimens for the nominal species *nodosus* Schlotheim, 1813, as published in the binomen *Ammonites nodosus*, prior to that by Urlichs & Mundlos, 1987, p. 7;
  (c) to set aside all previous designations of type species for the nominal genus *Ceratites* de Haan, 1825 and to designate *Ammonites nodosus* Schlotheim, 1813, as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Ceratites* de Haan, 1825 (gender: masculine), type species as designated in (1)(c) above *Ammonites nodosus* Schlotheim, 1813;

(3) to place on the Official List of Specific Names in Zoology the name *nodosus* Schlotheim, 1813, as published in the binomen *Ammonites nodosus* (specific name of the type species of *Ceratites* de Haan, 1825) and as defined by the lectotype designated by Urlichs & Mundlos (1987) cited in para. 10(c) above;

(4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *nodosa* Bruguière, 1789, as published in the binomen *Ammonites nodosa* and as suppressed in (1)(a) above.

Acknowledgement

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Case 2742

Vatellus Aubé, 1837 (Insecta, Coleoptera): proposed conservation

Anders N. Nilsson
Department of Animal Ecology, University of Umeå, S-901 87 Umeå, Sweden

Abstract. The purpose of this application is the conservation of the name *Vatellus* Aubé, 1837 for a genus of water diving beetle (DYTISCIDAE). It is threatened by *Leucorea* Laporte, 1835, an unused senior objective synonym of the Aubé name.

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1. Laporte (1835, p. 106) proposed the generic name *Leucorea* for the single species *Hydroporus tarsatus* Laporte, 1835, which is therefore the type species by monotypy. After discussing the differences between this and all the other species of *Hydroporus*, Laporte wrote: 'tous ces caractères sont peut-être suffisants pour en former un genre particulier, que nous proposerons d'appeler *Leucorea*.'

2. Aubé (1837, p. 221, pl. 26, fig. 2) rejected the name *Leucorea* Laporte and instead proposed the replacement generic name *Vatellus* for the single species *Hydroporus tarsatus* Laporte, 1835: 'Je n'ai pas cru devoir adopter pour ce nouveau genre le nom de *Leucorea* que M. de Laporte a proposé, dans le cas où l'on voudrait par la suite le séparer des *Hydroporus*; et cela parce que je ne puis comprendre qu'on impose aux entomologistes à venir, un nom pour une division générique qu'on ne s'est pas cru fondé à crèer soi-même'.

3. Chenu (1851, p. 213) noted that, although Laporte (1835) had described the beetle under the name *Leucorea*, the later name *Vatellus* (1837) should be used as the valid name because of its more widespread use (see, for example, Aubé 1838, pp. 448–449 and Buquet, 1840).

4. Gemminger & Harold (1868, p. 428) cited *Leucorea* Laporte as a synonym of *Vatellus* Aubé, and Sharp (1882, p. 285) accepted the name *Vatellus* without mention of *Leucorea*. Sharp (pp. 258, 282) also established VATELLINI as a tribe of the subfamily HYDROPORINAE Erichson, 1837.

5. *Leucorea* Laporte, 1835 has never been used as a valid generic name since originally proposed. As well as those works already cited, *Vatellus* Aubé has been used by the following: Régimbart, 1878 (p. 454); Branden, 1885 (p. 19); Zimmermann, 1920 (p.30); Blackwelder, 1944 (pp. 74–75); Guignot, 1946 (p. 113); Spangler, 1966 (p. 16); Biström, 1979; and Franciscolo, 1979 (p. 237).

6. As suggested by Nilsson et al. (1989, p. 314), it is very desirable for stability of nomenclature to retain the familiar name *Vatellus* and to suppress the unused senior objective synonym *Leucorea*.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the name *Leucorea* Laporte, 1835, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Vatellus* Aubé, 1837 (gender: masculine), type species by monotypy *Hydroporus tarsatus* Laporte, 1835;

(3) to place on the Official List of Specific Names in Zoology the name *tarsatus* Laporte, 1835, as published in the binomen *Hydroporus tarsatus* (specific name of the type species of *Leucorea* Laporte, 1835);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Leucorea* Laporte, 1835, as suppressed in (1) above.

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Case 2763

Coccinella undecimnotata Schneider, [1792] (currently *Hippodamia (Semiadalia) undecimnotata*; Insecta, Coleoptera): proposed conservation of the specific name

Robert D. Pope
c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Abstract. The purpose of this application is to conserve the specific name of *Coccinella undecimnotata* Schneider, [1792]. The name is threatened by the hitherto unrecognised senior synonym *Coccinella oculata* Thunberg, 1781. The ladybird beetle *Coccinella undecimnotata* is a widespread southern European species that has been the object of considerable study outside the field of taxonomy and is one that plays a significant part in the natural control of aphid pests of various crops in the south and east of the continent.

1. The ladybird beetle currently known as *Hippodamia (Semiadalia) undecimnotata* was first identified (Schneider, [1792a], p. 165; see Hagen, 1863, p. 134 for the date of publication) as '*Coccinella 11maculata*, Fabr.?' However, later in the same year the author (Schneider, [1792b], p. 379) corrected his error and named the species *Coccinella 11notata*, now cited as *undecimnotata*. After his death, Schneider's collection was sold ([Kühl], 1828, p. iv; Horn & Kahle, 1936, p. 247) and its present whereabouts are unknown. It is therefore not possible to establish the identity of *C. undecimnotata* by examination of the original material. However, a suite of salient features referred to in the original description (especially the combination of a black pronotum with yellow anterior angles, a pyrrhiform communal elytral black spot immediately behind the scutellum and five other separate black spots on each elytron), together with the redescription and clear illustrations of the species by Olivier (1808, p. 1018, pl. 98.1, fig. 4a & b, pl. 98.16, fig. 76), Mulsant's comments (1846, p. 65) and present-day detailed knowledge of Europe's limited coccinelline fauna, leave no room for doubt that Schneider's *Coccinella undecimnotata* [1792] is the species currently known as *Hippodamia (Semiadalia) undecimnotata* (Schneider). Under such circumstances, the designation of a neotype is not justified (Article 75b).

2. Recent studies (Pope, 1987, p. 61) have rediscovered the identity of *Coccinella oculata* Thunberg (1781, p. 14, fig. 18), unjustifiably re-named by Olivier (1791, p. 62) as *Coccinella circularis* and by Herbst (1793, p. 278) as *Coccinella omma* and, ever since the last date, regarded as a species inquirenda (Mulsant, 1850, p. 1046; Crotch, 1874, p. 9; Korschefsky, 1932, p. 582).

3. *Coccinella oculata* Thunberg, 1781 is a senior synonym of *Coccinella undecimnotata* Schneider, [1792]. Its identity was established (Pope, 1987, p. 61) by examination of Thunberg's original material in the collections of the Zoological Museum of the University of Uppsala, Sweden and the designation of a lectotype therefrom. It follows that the earliest available name for the taxon is *C. oculata*.

4. As with many common and variable ladybird species, *Coccinella undecimnotata* Schneider, [1792] has had a large number of available names applied to it. The most recent world catalogue (Korschefsky, 1932) lists a total of 22: 17 as names of 'aberrations', two as synonyms of *undecimnotata* and two as junior synonyms of names applied to 'aberrations'. The earliest valid name listed by Korschefsky (p. 362) is *undecimnotata* Schneider [1792b], p. 379. This has been constantly used as the valid name of the taxon since 1846 (Mulsant, p. 63) and in the last 60 years the name in combination with one or other of four generic names (*Adonia*, *Adalia*, *Semiadalia* and *Hippodamia* (*Semiadalia*)) has appeared in more than 50 papers in scientific journals, several monographic treatments of the beetle family COCCINELLIDAE and one textbook on their biology. The publications are the work of more than 15 different authors (see Ferran et al., 1984, Hodek (Ed.), 1966 (which includes 17 papers by six different authors in which the species is mentioned) and Hodek, 1973). A representative list of 24 additional references has been given to the Commission Secretariat. *Coccinella oculata* Thunberg, 1781 and its objective synonym *Coccinella circularis* Olivier, 1791 threaten the stability of a long-established and widely used name.

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the following specific names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
  (a) *oculata* Thunberg, 1781, as published in the binomen *Coccinella oculata*;
  (b) *circularis* Olivier, 1791, as published in the binomen *Coccinella circularis*;

(2) to place on the Official List of Specific Names in Zoology the name *undecimnotata* Schneider, [1792], as published in the binomen *Coccinella undecimnotata*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
  (a) *oculata* Thunberg, 1781, as published in the binomen *Coccinella oculata* and as suppressed in (1)(a) above;
  (b) *circularis* Olivier, 1791, as published in the binomen *Coccinella circularis* and as suppressed in (1)(b) above.

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Case 2748

Plusia falcifera Kirby, 1837 (currently *Anagrapha falcifera*; Insecta, Lepidoptera): proposed conservation of the specific name

J. Donald Lafontaine

Biosystematics Research Centre, Agriculture Canada, Ottawa K1A 0C6, Canada

Robert W. Poole

Systematic Entomology Laboratory, U.S. Department of Agriculture, c/o National Museum of Natural History, NHB-167, Washington, D.C. 20560, U.S.A.

Abstract. The purpose of this application is the conservation of the specific name of *Anagrapha falcifera* (Kirby, 1837), a North American noctuid moth which is a pest commonly known as the celery looper. The unused name *Autographa norma* Hübner, [1821] is an undoubted senior synonym for this species, and we propose the suppression of Hübner's name *norma*.

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1. The moth currently known as *Anagrapha falcifera* was first described and illustrated by Cramer ([1777], pp. 106–107, pl. 165, fig. c) as a supposed North American occurrence of *Phalaena (Noctua) jota* Linnaeus, 1758. While the specimen illustrated is no longer extant, the coloured illustration leaves no doubt as to the identity. The locality was stated to be Virginia, U.S.A.

2. Jacob Hübner ([1821], p. 251 of his 1816–[1826] *Verzeichniss bekannter Schmettlinge*) proposed the specific name *norma*, in his new genus *Autographa*, for 'Jota Cram. 165c'. The name *norma* has not been used since.

3. Kirby (1837, p. 308) described *Plusia falcifera* from Nova Scotia, Canada. The description leaves no doubt that this is the species that was illustrated by Cramer and named *Autographa norma* by Hübner.

4. Guénée (1852, p. 346) described *Plusia simplex* from New York; he listed '*Iota* Cr.165c (non Lin.)' in its synonymy but was evidently unaware of Hübner's name *norma*. Ottolengui (1902, p. 74) synonymized *falcifera* and *simplex*, and the former name has been used ever since.

5. McDunnough (1944, p. 202) proposed the generic name *Anagrapha* for *Plusia falcifera* on the basis of peculiarities of the male and female genitalia.

6. The larva of this moth, commonly known as the celery looper, is an economically important pest in North America. The specific name *falcifera* Kirby, 1837, in combination with the generic names *Plusia* Ochsenheimer, 1816, *Syngrapha* Hübner, [1821], or *Anagrapha* McDunnough, 1944, has been used in very many publications. Among the more important recent ones are Covell (1984), Eichlin & Cunningham (1978), Hodges et al. (1983), Kitching (1985), Nye (1975), Poole (1989) and Werner (1982), and further references have been given to the Commission Secretariat.

7. We are currently preparing a revision of the moth subfamily PLUSIINAE to be published as a fascicle in *The Moths of America north of Mexico* series, and we seek the stabilization of the specific name of this species as *falcifera* Kirby, 1837.

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *norma* Hübner, [1821], as published in the binomen *Autographa norma*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
(2) to place on the Official List of Specific Names in Zoology the name *falcifera* Kirby, 1837, as published in the binomen *Plusia falcifera*;
(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *norma* Hübner, [1821], as published in the binomen *Autographa norma* and as suppressed in (1) above.

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Case 2799

Simulium (Nevermannia) juxtacrenobium (Insecta, Diptera): a proposal that availability of the specific name be taken from the intended original description by Bass & Brockhouse, 1990

Jon A.B. Bass
Institute of Freshwater Ecology, Monkswood Experimental Station,
Abbots Ripton, Huntingdon PE17 2LS, U.K.

Charles Brockhouse
Department of Botany, University of Toronto, Toronto, Ontario,
Canada M5S 1A1

Abstract. The purpose of this application is to ensure that the specific name of *Simulium (Nevermannia) juxtacrenobium*, recently published for a new species of blackfly (SIMULIIDAE), is treated as first made available by Bass & Brockhouse (1990), who described the morphology, cytology and habitat of the species, and who designated the holotype. Another paper, discussing the supernumerary chromosomes of this and related species, unexpectedly appeared first but to take this as the original publication would mean that the nominal species would neither be properly described nor have preserved type material.

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1. During our work on a new species of blackfly (SIMULIIDAE) in the British fauna two papers were prepared in which our selected new specific name *juxtacrenobium* was used, one ('A') giving a formal description, with morphological, cytological and ecological information and the designation of a holotype, the other ('B') dealing more esoterically with the occurrence of supernumerary chromosomes in this and related species.

2. The paper 'A' containing the formal description of *Simulium (Nevermannia) juxtacrenobium* Bass & Brockhouse was expected to appear first, but because of an unforeseen delay in publication was not actually published until 1990, while paper 'B' by Brockhouse, Bass, Feraday & Straus was published in August 1989. Paper 'B' refers to paper 'A' as 'Bass, J.A.B. and Brockhouse, C. 1989... In press'.

3. The supernumerary B chromosomes of *Simulium juxtacrenobium* are described, illustrated and discussed in comparison with those of other taxa by Brockhouse et al. (August 1989) and their paper ('B') thus gives formal availability to the name *juxtacrenobium*.

4. If the name *juxtacrenobium* was to be taken from Brockhouse et al. (1989), in accordance with accidental and unintended priority, there would be serious difficulties with regard to typification of the nominal species. As mentioned above, the holotype was designated in paper 'A' (Bass & Brockhouse, July 1990), and this work would in any event always have to be cited for the morphological description of the species, its type locality and its morphological comparison with closely related blackflies; the

holotype designated in the paper is an adult male fly preserved in the Natural History Museum, London. If the highly specialized chromosomal paper of Brockhouse et al. (1989) was taken as the 'original publication' of *S. juxtacrenobium* for availability purposes there would be no preserved conventional type material.

5. In the circumstances described, it makes no sense to take the name *juxtacrenobium* from the paper 'B' which appeared first and which only accidentally makes the name formally available. Drs R.M. Feraday and N.A. Straus, our co-authors of paper 'B', are in agreement with this.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the specific name *juxtacrenobium* Brockhouse, Bass, Feraday & Straus, 1989, as published in the binomen *Simulium juxtacrenobium*, is unavailable;

(2) to place on the Official List of Specific Names in Zoology the name *juxtacrenobium* Bass & Brockhouse, 1990, as published in the binomen *Simulium (Nevermannia) juxtacrenobium*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *juxtacrenobium* Brockhouse, Bass, Feraday & Straus, 1989, as published in the binomen *Simulium juxtacrenobium*, ruled in (1) above to be unavailable.

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Case 2614

Vipio Latreille, 1804 (Insecta, Hymenoptera): proposed designation of *Agathis longicauda* Boheman, 1853 as the type species

R.A. Wharton

Department of Entomology, Texas A & M University, College Station, Texas, 77843 U.S.A.

W.R.M. Mason

Biosystematics Research Centre, Agriculture Canada, Research Branch, Ottawa, Ontario, K1A 0C6, Canada

Abstract. The purpose of this application is to designate *Agathis longicauda* Boheman, 1853 as the type species of the braconid genus *Vipio* Latreille, 1804, and so maintain the current usage of *Cremnops* Foerster, 1862 and *Vipio*. These genera are based respectively on *Ichneumon desertor* Linnaeus, 1758 and on a misidentification of Linnaeus's species by Fabricius.

1. Conflicting opinions have recently been published (van Achterberg, 1982; Nixon, 1986) regarding the placement of the genera *Cremnops* Foerster, 1862 and *Vipio* Latreille, 1804 (Hymenoptera, BRACONIDAE). The literature of the 19th century (Dalla Torre, 1898, pp. 137–138, 302–303) demonstrates clearly that *Ichneumon desertor* Linnaeus, 1758 and *I. desertor* sensu Fabricius, 1775 have been traditionally regarded as different species. The genera based on them, *Cremnops* Foerster, 1862 and *Vipio* Latreille, 1804 respectively, have been maintained in different subfamilies for over 100 years. Both *Vipio* and *Cremnops* are well established names with a long history of usage, and *Vipio* is the type genus of the family-group name VIPIONIDAE Viereck, 1916 (p. 181).

2. Linnaeus (1758, p. 563) described *Ichneumon desertor* from 'Europa'. The identity of *desertor* Linnaeus (a member of the AGATHIDINAE) is based on the female holotype in the collections of the Linnean Society, London (Roman, 1932, p. 5; Nixon, 1986, p. 192).

3. Fabricius (1775, p. 334; [1804], p. 102) presented an identical description of *Ichneumon desertor*, citing Linnaeus and also figures by Schaeffer ([1766]–1769–[1779], pl. 20, figs. 2, 3) immediately following this description. The reference to Schaeffer's figures, which do not match *desertor* Linnaeus, is the basis for the assumption by subsequent authors that Fabricius misidentified *desertor* Linnaeus. After examining the Fabricius collection in Copenhagen, van Achterberg (1982, p. 136) stated that more than one species and genus were mixed under the name '*desertor* Fabricius'.

4. Latreille (1804, p. 173) described the genus *Vipio*. He included three nominal species, *desertor*, *urinator* and *denigrator*, attributing authorship of all three to Fabricius. Latreille's (1804) description of *Vipio*, with the elongate labio-maxillary

complex and depression above the mandibles, clearly fits *desertor* sensu Fabricius (para. 3 above), but not *desertor* Linnaeus.

5. Fabricius ([1804], p. 102) included '*desertor*' (sensu Fabricius) in his new genus *Bracon*. Spinola (1808, p. 101), noting that the *desertor* of Fabricius (1775) was not the same as the *desertor* of Linnaeus (1758), renamed *desertor* Linnaeus as *Bracon deflagrator*, although the Linnaeus species had priority. Nees von Esenbeck (1812, p. 199) placed *deflagrator* Spinola in *Agathis* Latreille, 1804 (p. 173). All subsequent authors have treated *desertor* Linnaeus as generically distinct from the species which Fabricius called *desertor*. Foerster (1862, p. 246) designated *Agathis deflagrator* (with authorship incorrectly attributed to Nees von Esenbeck) as the type species of his new genus *Cremnops*. Bradley (1919, p. 59, footnote) renamed the Fabrician species *desectus*.

6. Foerster (1862, p. 235) designated '*Bracon desertor* F.' as the type species of *Vipio* Latreille. It is obvious from Foerster's description that he was dealing with a member of the BRACONINAE. Spinola (1808, p. 109) treated *Ichneumon denigrator* Fabricius, 1775 and *Ichneumon impostor* Scopoli, 1763 as synonyms. The latter is the type species of *Iphiaulax* Foerster, 1862. However, *denigrator* Fabricius is a misidentification of *denigrator* Linnaeus, 1758, the type species of *Atanycolus* Foerster, 1862. *Ichneumon urinator* Fabricius, 1798 is the type species of *Rostrobracon* Tobias, 1957, a subgenus of *Bracon* Fabricius, [1804]. Thus all three species originally included in *Vipio* by Latreille (1804) are members of the BRACONINAE but are now placed in distinctly different genera.

7. Following Szépligeti (1904, p. 15), most Palaearctic workers placed *desertor* sensu Fabricius in *Glyptomorpha* Holmgren, 1868. This appears to be the first major application of the name *Glyptomorpha* to Old World species. Separation of *Vipio* from *Glyptomorpha* by Szépligeti (1904, p. 10) and others (Fahringer, 1925, p. 22; Tobias, 1971, pp. 73, 82) was based on the treatment of *Ichneumon nominator* Fabricius, 1793 (not *Ichneumon nominator* Fabricius, 1787) as the type species of *Vipio* (see, for example, Fahringer, 1928b, p. 24). The placement of *nominator* sensu 1793 in *Vipio* was based on Latreille (1805, p. 176), but Latreille did not include *nominator* in *Vipio* in his 1804 publication (see para. 4). *Ichneumon nominator* Fabricius, 1793 (p. 155) is a junior primary homonym of *Ichneumon nominator* Fabricius, 1787 (p. 265; 1793, p. 158) and is therefore an invalid name. The senior homonym is the valid name for a South American ichneumonid of which the type specimen is extant (see Townes & Townes, 1966, p. 239). *Ichneumon nominator* Fabricius, 1793, the junior homonym, has never to our knowledge been renamed. *Agathis longicauda* Boheman, 1853 (p. 178) is the oldest available subjective synonym of *nominator* sensu 1793 (see Fahringer, 1928a, p. 575); the holotype is in the Boheman collection in Stockholm. Boheman's paper, which included his new name *longicauda*, was listed by the *Royal Society catalogue of scientific papers* (1867, p. 455) as appearing in the *Kongliga Vetenskaps-Akademiens Handlingar* in 1851, and by Hagen (1862, p. 63) and Horn & Schenkling (1928, p. 96) as appearing in 1852. The volume of the periodical is for the year 1851, the paper was submitted ('inlemnad den 6 Mars 1852', p. 53) in 1852 and published in 1853.

8. Van Achterberg (1982, p. 136) argued that '...nomenclatorily *Ichneumon desertor* Fabricius is actually *I. desertor* Linnaeus, 1758...', and that *Vipio* Latreille, 1804 is thus a senior synonym of *Cremnops* Foerster, 1862. Van Achterberg did not

mention Schaeffer's figures included in Fabricius's diagnosis of *desertor* and in his argument he ignored the Code, which requires (Article 70b) the case to be referred to the Commission. The result is that *Vipio*, a name previously associated only with the BRACONINAE (or VIPIONINAE), is being used by some authors instead of *Cremnops*, a name associated for the last 45 years with the subfamily AGATHIDINAE.

9. Nixon (1986, pp. 191–192) rejected the synonymy proposed by van Achterberg (1982) on the basis that *desertor* sensu Fabricius is radically different from *desertor* Linnaeus, the type species of *Cremnops*. Nixon (1986) therefore retained *Cremnops* in the AGATHIDINAE and *Vipio* in the BRACONINAE.

10. Since its description in 1862, *Cremnops* Foerster has been used almost universally in a stable sense. Shenefelt (1970, pp. 382–391) lists 92 references for 59 authors and 55 species. The only exception to the application of the name *Cremnops* in the braconid subfamily AGATHIDINAE is a group of American authors (for example, Morrison, Viereck and Muesebeck) who followed Viereck (1914, pp. 23, 37) and treated *Bracon* Fabricius, [1804] as a senior synonym of *Cremnops* between 1914 and 1945, when *Bracon* was defined by the designation of *Ichneumon minutator* Fabricius, 1798 as the type species (Opinion 162, June 1945).

11. Bradley (1919) renamed *desertor* sensu Fabricius (see para. 5), but several older names were already available as junior subjective synonyms (Shenefelt, 1978; van Achterberg, 1982). The oldest synonym for which we have been able to locate a type specimen is *Pseudovipio intermedia* Szépligeti, 1901 (p. 179) (not *Vipio intermedius* Szépligeti, 1896) (see Papp, 1960, p. 371). *Pseudovipio intermedia* is included in the genus *Glyptomorpha* Holmgren, 1868 (type species *G. ferruginea* Holmgren, 1868), as interpreted by Szépligeti (1904) and Quicke (1987, p. 85). Although the most recent catalog of the BRACONINAE (Shenefelt, 1978) lists *Glyptomorpha* as a subjective synonym of *Vipio*, braconid workers are in general agreement that the taxa involved are separable at least at the subgeneric level. Further, *Glyptomorpha* is perhaps the most widely used of the names (van Achterberg, 1987, pers. comm.) and includes many Palaearctic and Afrotropical species. It is also the type genus of a family-group name. Until van Achterberg's 1982 paper, *Vipio* has been used by most workers in the sense of Szépligeti (1904) with *Ichneumon nominator* Fabricius, 1793 taken to be the type species. *Vipio* has also been used by all North American authors since the 1940's for a group of nine nominal species occurring in the Nearctic region. It is therefore crucial to select from the central European fauna an identifiable nominal species as the type species for *Vipio*. Selection of *Pseudovipio intermedia* Szépligeti, 1901 as the type species would render *Glyptomorpha* Holmgren, 1868 a junior subjective synonym of *Vipio* Latreille, 1804 and require the use of *Isomecus* Kriechbaumer, 1895 (p. 11) as the oldest available synonym in place of *Vipio* auctt. (van Achterberg, 1982; Quicke, 1987). Prior to van Achterberg (1982) *Isomecus* had not been used in the primary literature since its original description. We therefore do not favour this course. Selection of *Agathis longicauda* Boheman, 1853, a junior subjective synonym of the invalid *Ichneumon nominator* Fabricius, 1793, preserves the stability and uniformity of usage of both *Vipio* and *Glyptomorpha* followed by most authors for the last 87 years and retains *Vipio* in the BRACONINAE. A representative list of 10 references dating from 1910 to 1989, which demonstrate usage of *Vipio* in the sense of *nominator* Fabricius, 1793 as the type species, is held by the Commission Secretariat. The references include Papp (1971), Marsh, Shaw & Wharton (1987) and Quicke & Sharkey (1989).

12. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Vipio* Latreille, 1804, and to designate *Agathis longicauda* Boheman, 1853 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Vipio* Latreille, 1804 (gender: masculine), type species by designation in (1) above *Agathis longicauda* Boheman, 1853;

(3) to place on the Official List of Specific Names in Zoology the name *longicauda* Boheman, 1853, as published in the binomen *Agathis longicauda* (specific name of the type species of *Vipio* Latreille, 1804).

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Case 2675

Natrix gemonensis Laurenti, 1768 (currently *Coluber gemonensis*), *Coluber viridiflavus* Lacépède, 1789 and *Coluber helveticus* Lacépède, 1789 (currently *Natrix natrix helvetica*) (Reptilia, Serpentes): proposed conservation of the specific names

Beat Schätti
Muséum d'Histoire Naturelle, Route de Malagnou, CH-1211 Genève, Switzerland

Andrew F. Stimson
The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Klaus Henle
Johann Wolfgang Goethe-Universität, Siesmayerstrasse 70, D-6000 Frankfurt am Main, Germany

Abstract. The purpose of this application is to conserve the name *Coluber gemonensis* (Laurenti, 1768) for the Balkan whip snake by the designation of a neotype, and also to conserve *Coluber viridiflavus* Lacépède, 1789 for the European whip snake and *Natrix natrix helvetica* (Lacépède, 1789) for the western European grass snake, two names originally published in a rejected work.

1. *Coluber gemonensis* (Laurenti, 1768) (p. 76) is currently in use for the well known Balkan whip snake and *Coluber viridiflavus* Lacépède, 1789 (p. 86) for the equally well known European whip snake. These names have been consistently applied to these two species in numerous books and periodicals for more than 50 years. The only exceptions are the proposal by Schätti & Lanza (1988) to replace *gemonensis* with *laurenti* Bedriaga, 1882 (p. 295), published as *Zamensis gemonensis* var. *laurenti*, and Gruber's (1989) subsequent use of *laurenti* in a field guide. Some important works employing *gemonensis* and *viridiflavus* in their currently accepted sense are noted in the references.

2. The type specimen of *gemonensis* can no longer be traced and the original description is insufficient to allow an unequivocal identification. One of us (Schätti) believes that the species in question was *viridiflavus* and not *gemonensis* as currently understood. Furthermore, the type locality (Gemona, Friuli, Italy) is more than 80 km outside the present known limits of distribution of *gemonensis* (auctt.) but well within the range of *viridiflavus*. Mertens (1957) has already noted that *gemonensis* (auctt.) does not occur around Gemona. However, another of us (Henle) thinks it nevertheless possible that Laurenti's description really was based on *gemonensis* as understood today.

3. Accepting Schätti's viewpoint, strict application of the Principle of Priority would result in *gemonensis* (auctt.) taking the next oldest available name (*laurenti* Bedriaga,

1882) while *viridiflavus* would change to *gemonensis* Laurenti (see also Mertens, 1968). Such a change would not be in the best interests of stability; not only would two well known species change their names but a name now in use for one species would in future have to be used for the other.

4. In view of the doubt surrounding the identity of Laurenti's type specimen we feel that stability would best be served by designating under the plenary powers a neotype for *Natrix gemonensis* Laurenti, 1768 that is consistent with modern usage. We therefore propose that MHNG (Muséum d'Histoire Naturelle, Geneva) 1357.70 be designated the neotype. The specimen is an adult male measuring 916 mm in length (snout-vent 660 mm, tail 256 mm), collected at Cegar (Zadar, Yugoslavia). It has 170 ventrals, divided anal plate, 92 subcaudals, 19 dorsal scale rows at mid-body, 8 supralabials (4th and 5th entering orbit), 1 subocular, 1 preocular, 2 postoculars and 2 + 3 temporals.

5. *Coluber viridiflavus* and *Natrix natrix helvetica* (Lacépède, 1789) (p. 100) are well known European snakes, the names of which have become stable through consistent usage for more than half a century. Both were first described by Lacépède (1789) in a work ruled unavailable for nomenclatural purposes (as being non-binominal) by the Commission in 1987 (Opinion 1463, BZN **44**: 265–267). If this Opinion were strictly applied both snakes would have to change their names. Assuming that proposal (1)(a) below for a neotype of *gemonensis* is accepted, *Coluber viridiflavus* would be replaced by *Coluber vulgaris* Bonnaterre, 1790 (p. 28) and *Natrix natrix helvetica* would become *Natrix natrix helveta* (Donndorff, 1798) (p. 207). Neither of these names has been used as a senior synonym since its original description. We believe that the names in current use, *viridiflavus* and *helvetica*, should be retained. Some of the more important works employing these names are noted in the references.

6. The name *Elaphe quatuorlineata* (Lacépède, 1789) (p. 82), in use for the European four-lined snake, was also first proposed (as *Coluber quatuorlineatus*) in the same rejected work. This name, however, has already been placed on the Official List (Opinion 490). As remarked by Savage (BZN **38**: 9), the rejection of Lacépède (1789) in Opinion 1463 does not prevent *quatuorlineata* from remaining an available name (under Article 78f of the Code). It may be noted that *Ahaetulla nasuta* (Lacépède, 1789) (p. 100) also remains an available name (Opinion 524).

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  - (a) to set aside all previous fixations of type specimens for the nominal species *Natrix gemonensis* Laurenti, 1768 and to designate the specimen MHNG 1357.70, for which the data are given in para. 4 above, as the neotype;
  - (b) to rule that the following specific names are available despite having been published in a rejected work:
    - (i) *helveticus* Lacépède, 1789, as published in the binomen *Coluber helveticus*;
    - (ii) *viridiflavus* Lacépède, 1789, as published in the binomen *Coluber viridi-flavus*;

(2) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *gemonensis* Laurenti, 1768, as published in the binomen *Natrix gemonensis*, and as defined by the neotype designated in (1)(a) above;

(b) *helveticus* Lacépède, 1789, as published in the binomen *Coluber helveticus*, and as conserved in (1)(b)(i) above;

(c) *viridiflavus* Lacépède, 1789, as published in the binomen *Coluber viridiflavus*, and as conserved in (1)(b)(ii) above.

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Works employing, as senior synonyms, those species-group names whose conservation is sought in this application are followed by a letter or letters denoting the name(s) used: *g*=*gemonensis*, *v*=*viridiflavus* and *h*=*helvetica*.

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Comment on the proposed confirmation of a lectotype for *Lindholmiola barbata* (Férussac, 1821 or 1832) (Mollusca, Gastropoda)

(Case 2630; see BZN **47**: 101–103)

Edmund Gittenberger
Nationaal Natuurhistorisch Museum, Postbus 9517, NL 2300 RA Leiden, The Netherlands

The British author A.S. Kennard, not reputed to be rude in his writings, referred (1942, p. 111) to 'the Augean stables of nomenclature, Férussac's legacy to his successors'. In his application, Kadolsky, in arguing that *barbata* Férussac should be accepted as available only from 1832 and not 1821, has tried to force logic and consistency into Férussac's 1821 work. Kadolsky has referred (para. 3) to 'the most logical interpretation' of Férussac's problematic text, thereby implicitly admitting that other interpretations remain possible and cannot be considered (para. 4) simply to be 'errors' by Gittenberger & Groh (1986). No Article of the Code demands that the 'most logical interpretation' should be followed, leaving aside the question whether this can be decided objectively.

Inspection of Férussac's 1821 work shows that Greek letters were not used simply to indicate variants of an undescribed 'normal form' of a species. In some cases a letter was used for no obvious reason (e.g. species no. 288, *cretica*, was described 'α) Alba, immaculata', and there is no β). In other cases letters α, β, etc. appear to indicate forms of equal value in Férussac's concept of his species. There is no need to follow Kadolsky's interpretation that Férussac characterized only the varieties and not the typical form of his new taxa, and consequently there is no need to consider *barbata* to be a nomen nudum in 1821.

Kadolsky (para. 4, note 4) says that '*barbata* var α' of Férussac (1832, Fig. 3), which Gittenberger & Groh (1986) designated the lectotype of *Helix barbata* Férussac, 1821, 'is obviously not the variety α of 1821'. However, this plausible view is in fact incorrect. Mr G. Falkner has called my attention to the fact that 'la Sude' is an old name for a site near the present Kolpos Soúdhas in western Crete. This is the locality mentioned by Férussac (1821a, p. 37; 1821b, p. 41) for his *barbata* α. Only a single species of *Lindholmiola*, namely *barbata* sensu auct. and Férussac (1832, Fig. 3), occurs in Crete, and is restricted to the western half of the island (my own observations). Evidently there has been no interchange of name in this case. This means that I cannot accept Kadolsky's para. 6. Evidently *barbata* Férussac, 1821 was based on a mixture of two species, currently known as *L. lens* (from Zante, Scio and Sestos) and *L. barbata* (from 'près la Sude'); the specimens from Crete are lost.

Acceptance of Kadolsky's proposals as published on BZN **47**: 103 would have consequences for the availability of other names introduced by Férussac in 1821. Taking all this into account, I agree with the overall purpose of Kadolsky's application but I cannot accept proposal (1); this should be altered to confirm the availability of *Helix* (*Helicigona*) *barbata* from Férussac, 1821, and the necessary date changes should be made in proposals (2) and (4).

Comments on the proposed conservation of *Limax fibratus* Martyn, 1784 and *Nerita hebraea* Martyn, 1786 (currently *Placostylus fibratus* and *Natica hebraea*; Mollusca, Gastropoda)

(Case 2641; see BZN **47**: 12–18, 202–204)

(1) Anders Warén
Naturhistoriska Riksmuseet, P.O. Box 50007, S-10405 Stockholm, Sweden

I am well acquainted with both the species names which the Commission is being asked to conserve in Dr Bouchet's application. The figures in the original work are unequivocal and both names are widely used in the literature in an unambiguous way. Any changes would lead to confusion and disrespect for the principles of nomenclature.

(2) Simon Tillier
Laboratoire de Biologie des Invertébrés marins et Malacologie, Muséum National d'Histoire Naturelle, 55 rue Buffon, F-75005 Paris, France

As a malacologist working on the New Caledonian land snail fauna, I strongly support Dr Bouchet's application for the conservation of *Limax fibratus* Martyn, 1786 and I disagree with Dr Abbott's objections. As stated by Dr Bouchet, the next available name is *Voluta elongata* Lightfoot, 1786, which has never been used during two centuries, and there is a great deal of confusion with the use of *Bulimus bovinus* Bruguière, 1792. This was also the opinion of Alan Solem, who published the most recent checklist of New Caledonian land snails (1961), as cited by Dr Bouchet (BZN **47**: 14).

Comments on the proposed designation of a type species for *Strophomena* de Blainville, 1825 (Brachiopoda)

(Case 2747; see BZN **47**: 274-276)

(1) A.W.A. Rushton
British Geological Survey, Keyworth, Nottinghamshire NG12 5GG, U.K.

I write to support the proposal by Dr L.R.M. Cocks to fix *Leptaena planumbona* Hall, 1847 as the type species of *Strophomena*. This will stabilise an important genus of brachiopods and consequently the taxonomy of major taxonomic groups.

(2) Sir Alwyn Williams
Palaeobiology Unit, Department of Geology and Applied Geology, 8 Lilybank Gardens, Glasgow G12 8QQ, U.K.

I have read with great interest the paper by L.R.M. Cocks on *Strophomena* de Blainville, 1825. As the paper indicates, the type species of this genus is of crucial importance to taxonomists dealing with the Brachiopoda. Dr Cocks has lucidly and correctly addressed the problems arising from the lack of a clear type species when the genus was first founded. Accordingly, I unreservedly support the proposals and hope they can be implemented expeditiously as about 40 brachiopodologists are currently revising the brachiopod section of the *Treatise on Invertebrate Paleontology*.

Comments on the proposed conservation of the scorpion names *Buthus vittatus* Say, 1821, *Centrurus hentzi* Banks, 1904 and *Buthus vittatus* Guérin Méneville, [1838] (Arachnida, Scorpionida)

(Case 2637; see BZN **46**: 233–235)

(1) Anthea Gentry
Secretariat, International Commission on Zoological Nomenclature

As indicated in the application by Stockwell & Levi, *Centruroides vittatus* (Say, 1821) is a well known species of North American scorpion. Say clearly described a species from Georgia and Florida, rather than the species from Texas and surrounding areas to which the name is now applied, and nomenclatural confusion would result from a strict adherence to the Code.

The application sought to conserve *Buthus vittatus* for the Texas species by using the plenary powers to deem Wood (1863), who first described this species, to have been the author of the name. In consequence, the junior subjective synonym currently in use for the scorpion from Georgia and Florida, *Centruroides hentzi* (Banks, 1904), would also be conserved. However, this procedure has a number of disadvantages. (1) Wood (1863) did not use *vittatus* as the valid name for the Texas scorpion. (2) The name *vittatus* has been cited from Say (1821) in a large number of publications (a representative list of 50 is held by the Commission Secretariat; see para. 5 of the application) and confusion could arise if the name were now cited as of a different author and date (i.e. Wood, 1863). (3) Wood misidentified the Texas species as *Scorpio carolinianus* Palisot de Beauvois, 1805 and wrongly cited *Buthus vittatus* (spelt '*vitatus*') as a synonym of the latter. (4) The name *vittatus*, if ascribed to Wood (1863), would appear 42 years later than when cited from Say (1821); an unreplaced homonym, *Buthus vittatus* Guérin Méneville, [1838] (overlooked in Stockwell & Levi's application, see comment (3) below), junior to *B. vittatus* Say, 1821, becomes senior to *B. vittatus* Wood, 1863, rendering the latter invalid.

It now appears better to retain authorship of the name *Buthus vittatus* as Say (1821) and, by means of the plenary powers, to designate a neotype for the Texas species of scorpion for which the name is currently in use. A suitable specimen in the U.S. National Museum, Washington, D.C., was mentioned in Stockwell & Levi's application (para. 9). This course would also remove the synonymy of *vittatus* with the name *hentzi* Banks, 1904. Drs Stockwell and Levi now propose that, instead of the proposals on BZN **46**: 234, the International Commission on Zoological Nomenclature be asked:

(1) to use its plenary powers to designate as the neotype of *Buthus vittatus* Say, 1821 the adult male specimen labelled '*Buthus vittatus* Say, 1821, NEOTYPE, Det. S.A. Stockwell', from 'Brackettvile, Kinney Co., Texas, 21 May 1984 (S.A. Stockwell)';

(2) to place on the Official List of Specific Names in Zoology the following names:
   (a) *vittatus* Say, 1821, as published in the binomen *Buthus vittatus* and as defined by the neotype designated in (1) above;
   (b) *hentzi* Banks, 1904, as published in the binomen *Centrurus hentzi*.

(2) Vincent D. Roth
Box 136, Portal, Arizona 85632, U.S.A.

The application for the conservation of the specific names of *Buthus vittatus* Say, 1821 and *Centrurus hentzi* Banks, 1904 should be accepted. The proposal will stabilize the usage of the names for these two well known species of scorpion.

(3) W. David Sissom
Department of Biology, Elon College, North Carolina 27244, U.S.A.

I fully agree that the name *Buthus vittatus* Say, 1821 should be conserved to maintain stability of nomenclature for what is perhaps the best known of North American scorpions, but an important homonym has been overlooked. Guérin Méneville ([1838], p. 50; see p. xii and Sherborn & Woodward, 1906, p. 336 for the date of publication) described a species *Buthus vittatus* from Chile, presumably unaware of Say's *Buthus vittatus* in North America. Guérin Méneville's *vittatus* was referred to the genus *Bothriurus* Peters, 1861 (p. 510) by Thorell (1876, pp. 168, 270), and it has subsequently been cited in that combination. The taxonomic history of *Bothriurus vittatus* (Guérin Méneville) is rather complicated, but it has generally been considered a true species for a long time (several subspecies have been proposed which are now regarded as either species themselves or synonyms of other species). It is highly desirable to retain *Bothriurus vittatus* (Guérin Méneville, [1838]) since it is currently in use for a South American scorpion. Guérin Méneville's specific name *vittatus* has not, for the last 115 years, been included in its original genus or been considered congeneric with either of the North American species which have been called *vittatus*. Although a junior primary homonym, it has never been replaced (Articles 52b and 60 of the Code). To replace the name now would be pedantic and would cause unnecessary disruption in the nomenclature of this species. The species has been included in the following works: Pocock (1893, p. 94), Mello-Leitao (1945, pp. 191–192) and Maury (1981, p. 107). A representative list of a further 23 references demonstrating usage of the name is held by the Commission Secretariat.

The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the specific name *vittatus* Guérin Méneville, [1838], as published in the binomen *Buthus vittatus*, is not invalid by reason of being a junior primary homonym of *Buthus vittatus* Say, 1821;

(2) to place on the Official List of Specific Names in Zoology the name *vittatus* Guérin Méneville, [1838], as published in the binomen *Buthus vittatus* (not invalid despite being a junior primary homonym of *Buthus vittatus* Say, 1821).

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Comments on the proposed conservation of the specific name *Artemia franciscana* Kellogg, 1906 (Crustacea, Branchiopoda)

(Case 2728; see BZN **47**: 178–183)

(1) P. Sorgeloos, P. Lavens & W. Tackaert
Artemia Reference Center, Faculty of Agricultural Science, Rijksuniversiteit Gent, Rozier 44, B–9000 Gent, Belgium

It is with great interest that we have read the proposed conservation of the name of the broadly distributed North American brine shrimp species *Artemia franciscana*.

Since the publication of Bowen et al. (1978) this name has been fully accepted in the literature. Except for the paper by Amat Domenech (1980; see BZN **47**: 180, para. 6) we do not know of any recent publication which has used a synonym of *franciscana*, and we support the proposals on BZN **47**: 180–181.

(2) Francisco Amat
Instituto de Acuicultura de Torre de la Sal, Consejo Superior de Investigaciones Cientificas, Ribero de Cabanes, 12595 Torre de la Sal, Castellón, Spain

I support the proposals by Belk and Bowen, which will clarify the nomenclature of North American *Artemia*.

(3) Support for the proposals on BZN **47**: 180–181 has also been received from the following: Prof C. Barigozzi (*Dipartimento di Genetica e di Biologia dei Microrganismi, Università degli Studi di Milano, Via Celoria 26, 20133 Milano, Italy*); Dr Laura Torrentera Blanco (*Department of Zoology, University of Wisconsin, Madison, Wisconsin 53706, U.S.A.*); Dr A.M. Maeda-Martinez (*Institute of Ecology, University of Gent, K. Ledeganckstraat 35, B–9000 Gent, Belgium*); Dr Graziella Mura (*Dipartimento di Biologia Animale e dell'Uomo, Università di Roma 'La Sapienza', Roma, Italy*).

Comments on the proposed precedence of *Bathynomus* A. Milne Edwards, 1879 (Crustacea, Isopoda) over *Palaega* Woodward, 1870

(Case 2721; see BZN **47**: 27–29, 212–213, 290–293)

(1) Sergio de Almeida Rodrigues
Instituto de Biociencias, Universidade de São Paulo, Caixa Postal 11461, São Paulo, Brazil

In my opinion *Bathynomus* should be given precedence over *Palaega*. To drop the widely recognized name *Bathynomus* would create a lot of trouble among non-specialists on crustacea without bringing significant benefit to taxonomy, as the genus *Palaega* seems to be quite obscure.

(2) Niel L. Bruce
Queensland Museum, P.O. Box 300, South Brisbane, Queensland 4101, Australia

Palaega, as defined by the type species *P. carteri* Woodward, 1870, is unambiguously distinct from *Bathynomus*. In all extant *Bathynomus* species the pleotelson posterior margin is truncate or subtruncate and provided with a number of distinct widely separated prominent spines. The pleotelson itself is always relatively short (about 0.67–0.86 as long as wide (Bruce, 1986)). In *Palaega carteri* the posterior margin of the pleotelson is smoothly curved or rounded and is finely serrate with a prominent median point; the pleotelson is nearly as long as wide (ratio 0.94, 0.95 (Woodward, 1870)).

Wieder & Feldmann (1989) made a fundamental error in assuming that because *Palaega goedertorum* appeared indistinguishable from *Bathynomus* it followed that *Bathynomus* and *Palaega* were synonymous. *Palaega*, as constituted by the currently included species, is not a valid genus. Wieder & Feldmann (1989) themselves acknowledge that it is a form genus with representatives from several families. Species such as *P. lamnae* Bowman, 1971 and *P. pumila* Gall & Grauvogel, 1971 are not congeneric with the type species and could belong to different families.

The diagnoses provided by Wieder & Feldmann are not congruent with contemporary diagnoses of extant isopod taxa and cannot therefore be applied to extant isopods. Their diagnosis to the CIROLANIDAE effectively diagnoses only the Flabellifera. Similarly, their diagnosis for *Palaega* could be applied to several families. There is little utility in synonymising a precisely defined genus with a name that approximates to a group of families.

In summary, it is my opinion that *Palaega carteri* Woodward is not congeneric with *Bathynomus*. Notwithstanding, some fossil isopods could well be species of *Bathynomus*. In order to maintain stability in the use of *Bathynomus* I strongly urge the Commission that, in all cases of conflict, *Bathynomus* be given precedence over *Palaega* and I therefore fully support the proposal of Martin & Kuck.

Comment on the conservation of *Semblis* Fabricius, 1775 (Insecta, Trichoptera) by the designation of *Phryganea phalaenoides* Linnaeus, 1758 as the type species

(Case 2655; see BZN **45**: 275–277; Opinion 1596; see BZN **47**: 154–155)

I.M. Kerzhner
Zoological Institute, Academy of Sciences, Leningrad 199164, U.S.S.R.

I should like to make a small correction to the history of this case; it does not affect the ruling. *Hemerobius lutarius* Linnaeus, 1758 was first designated as the type species of *Semblis* Fabricius, 1775 by Blanchard in 1845 (p. 311), not [1848, p. 539] as stated on BZN **45**: 275.

Blanchard, C.E. 1845. *Histoire des insectes*, vol. 2. 524 pp. Didot, Paris.

Comments on the proposed conservation of *Acanthophthalmus* van Hasselt in Temminck, 1824 (Osteichthyes, Cypriniformes) with *Cobitis kuhlii* Valenciennes in Cuvier & Valenciennes, 1846 as the type species

(Case 2738; see BZN **47**: 118–121)

(1) Peter K.L. Ng, Angus D. Munro & Kelvin K.P. Lim
Department of Zoology, National University of Singapore, Lower Kent Ridge Road, Singapore 0511

We have reservations about Burridge, Siebert & Ferraris's proposal to set aside *Cobitis taenia* Linnaeus, 1758 as the type species of *Acanthophthalmus* van Hasselt in Temminck, 1824 and replace it with *Cobitis kuhlii* Valenciennes in Cuvier & Valenciennes, 1846.

As stated in BZN **47**: 118, para. 1, Kottelat (1987) was the first to show that of the four species originally included by van Hasselt (1823) in *Acantophthalmus*, three are nomina nuda and only *Cobitis taenia* Linnaeus, 1758 is available, which is therefore the type species by monotypy. *C. taenia* remains the type species of the unjustified emendation *Acanthophthalmus* van Hasselt in Temminck, 1824. In Opinion 1500 (BZN **45**: 178), however, *C. taenia* was designated the type species of *Cobitis* Linnaeus, 1758, rendering *Acanthophthalmus* a junior objective synonym of *Cobitis*.

Despite the fact that coolie loaches have been better known as *Acanthophthalmus*, we believe that the principle of priority should not be waived in this case. Burridge et al. noted (their para. 6) that Kottelat (1987), the last reviewer, had indicated that the loss of the name *Acanthophthalmus* would result in some initial confusion, but they failed to add his subsequent statement, that while he could have requested the Commission to conserve *Acanthophthalmus* he chose not to do so. Kottelat (p. 372) added that '... our current knowledge of Oriental ichthyology is far from adequate,... several widely used faunae or revisions are far out-dated or based on uncritical former revisions, etc.... The introduction of the correct names causes no more confusion than the quite normal changes that will result from better taxonomy'. The problems and inadequacies in Southeast Asian freshwater fish taxonomy are many, and our experiences support Kottelat's observation that more problems like those encountered in *Acanthophthalmus* can be expected. Ichthyologists already accept that the generic names associated with their familiar species change as a result of taxonomic (rather than nomenclatural) decisions; even the complete change of name for the rainbow trout from *Salmo gairdnerii* Richardson, 1836 to *Oncorhynchus mykiss* (Walbaum, 1792) has been widely accepted (see Smith & Stearley, 1989; Gall & de Groot, 1990).

The 'representative list of 14 references' from the past 130 years mentioned by Burridge et al. should be made available for general evaluation. We found only 20 citations under *Acanthophthalmus* in *Zoological Record*, vols. 112 to 125, covering the years 1975 to 1989; of these, 17 were in aquarium journals, two others were taxonomic (Kottelat, 1987) and nomenclatural (Opinion 1500, BZN **45**: 178–179), while the remaining reference related to experimental work (Neyfakh, 1974). The indexes of *Current references in fish research* (Cvancara, 1979–1989) yielded only one other paper (Ferris & Whitt, 1977).

The comment by Burridge et al. that the name *Acanthophthalmus* has been widely used must therefore be considered carefully. A great many references to coolie loaches have been in popular aquarium books and journals. The popularity of fish rearing, the number of books being produced and the large number of species involved would make justification for conservation of many names quite easy if such books were to be a major criterion. Such publications are rarely concerned with taxonomy; often identifications are not checked by specialists and mistakes are repeated. If aquarists are really interested in learning the scientific names of their fish they should be able to cope with nomenclatural changes.

Although by no means discounting catalogues and guides, since they reflect use of a name by the general community, the fact that *Acanthophthalmus* has appeared in such publications would seem to be a weak argument. The number of scientific papers pertaining to *Acanthophthalmus* is few. There is not a large literature dealing with general ecology, physiology, and so on. The problems suggested by Burridge et al. over the familiarity of the name *Acanthophthalmus* have been associated more with well known aquarium fish, which are usually not identifiable to species level. With this belief, we have followed Kottelat (1987 and 1989) and adopted the name *Pangio* Blyth, 1860 (type species *Cobitis cinnamomea* McClelland, 1839 (p. 304)) in place of *Acanthophthalmus* (Lim & Ng, 1990; Lim et al., 1990a and b; Munro, 1990; Ng, 1990; Ng & Lim, 1990), as has Zakaria-Ismail (1989) in his critical revision of the peninsular Malaysian freshwater fish. The name *Pangio* has also already been generally accepted in European aquarium journals. We believe that the replacement of *Acanthophthalmus* with *Pangio* will be seen as an improvement in a previously erroneous nomenclature. Consequently, we do not agree with Burridge et al. that 'considerable confusion' will result from this replacement. Neither is the genus *Acanthophthalmus* as taxonomically homogeneous as they imply, and the relationships of the approximately dozen species in this genus are far from completely certain. The genus *Acanthophthalmus* includes at least two subjective synonyms, *Cobitophis* Myers, 1927 and *Eucirrhichthys* Perugia, 1892. Recently, two species, *A. lorentzii* and *A. sandakanensis*, were transferred to another genus, *Lepidocephalichthys* Bleeker, 1863, by Roberts (1989).

We contend that the principle of priority should be applied in this case and that the valid generic name for the coolie loaches is *Pangio* Blyth, 1860.

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(2) Maurice Kottelat
Ichthyology Section, Zoologische Staatssammlung, D-8000 München 60, Germany

I entirely agree with the comment by Ng, Munro & Lim (see above). Burridge, Siebert & Ferraris are dealing with a Southeast Asia fish fauna which has been neglected for a long time and this inevitably leads to the discovery of a number of nomenclatural problems. It seems to me that a good solution is one which conforms with the Code and is of immediate application. A solution which requires the use of the plenary powers and postpones the application of a name may be a correct, or 'legal', one, but is not a good one, especially if it applies to a relatively little used name. Ng et al. have mentioned the change of *Salmo gairdnerii* (usually spelled *gairdneri*) to *Oncorhynchus mykiss*; this is creating little difficulty despite the species concerned being of great economic importance and the subject of many publications each year. Therefore, I cannot imagine that introducing the valid name *Pangio* for a little known and little studied fish genus of no economic importance is likely to cause great confusion.

Both *Acantophthalmus* van Hasselt, 1823 and *Cobitis* Linnaeus, 1758 had *C. taenia* Linnaeus, 1758 as type species and *Acantophthalmus* was placed on the Official Index (Opinion 1500). The next two available subjective synonyms were *Pangio* and *Apua*, both authored by Blyth (1860). As first reviser I retained *Pangio* (Kottelat, 1987). This change of name is of no greater inconvenience than changes resulting from 'every-day' taxonomic practice, either splitting a genus (which is likely to happen to *Pangio*) or lumping two genera. All the works given by Burridge et al. to demonstrate usage of *Acanthophthalmus* were written before my 1987 paper, including Roberts (1989) which was ready for printing by 1985 (see the front page) and not updated since. The supposed constant usage of *Acanthophthalmus* noted by Burridge et al. is not supported. A number of species now included in *Pangio* (or *Acanthophthalmus*) have been placed in *Apua* Blyth, 1860 (Hora, 1921), in *Eucirrichthys* Perugia, 1892 (Perugia, 1893; Weber & de Beaufort, 1916; Smith, 1933; Tweedie, 1956; Tortonese, 1961; Nijssen et al., 1982; Zakaria-Ismail, 1984) and in *Cobitophis* Myers, 1927 (Myers, 1927; Herre, 1940; Smith, 1945; Taki, 1974; Sirimontaporn, 1984). These placements are included in half the 'catalogues and guides' listed by Burridge et al. Since my 1987 paper, two more species of '*Acanthophthalmus*' have been removed to *Lepidocephalichthys* Bleeker, 1863. All this demonstrates that the taxonomy of the genus, or genera, has not yet reached maturity and many more changes are to be expected.

My 1987 paper using the name *Pangio* appeared in one of the most widely distributed ichthyological journals, and certainly the most widely distributed in Asia. *Pangio* has been accepted in both the scientific literature (Kottelat, 1990 may be added to the references cited by Ng et al.) as well as popular works (for example Fusko, 1989; Steinle & Schmidt, 1989; Ott, 1990a, b). A single modification in the nomenclature (to *Pangio*) has not caused confusion, but a further modification (back to *Acanthophthalmus*) is much more likely to do so.

It seems to me that the fewer exceptions there are to a good principle or a good code, the better it works. My 1987 position in not petitioning the Commission was that adoption of *Pangio* Blyth, 1860 was a straightforward way to solve the problem of the loss of *Acantophthalmus* van Hasselt, 1823. Strict application of the Code allows an easy and straightforward solution.

Additional references

Fusko, M. 1989. Die grossen Unbekannten — zur Haltung und Pflege einheimischer Schmerlen. *Die Aquarien- und Terrarien-Zeitschrift*, **42**: 208–209.

Herre, A.W.C.T. 1940. New species of fishes from the Malay Peninsula and Borneo. *Bulletin of the Raffles Museum*, **16**: 5–26.

Hora, S.L. 1921. Notes on the occasional absence of the paired fins in fresh water fishes, with some observations on the two apodal genera *Channa*, Gronow and *Apua*, Blyth. *Record of the Indian Museum*, **22**: 27–32.

Kottelat, M. 1990. *Indochinese nemacheilines. A revision of nemacheiline loaches (Pisces: Cypriniformes) of Thailand, Burma, Laos, Cambodia and southern Viet Nam*. 262 pp. Pfeil, München.

Myers, G.S. 1927. *Puntius streeteri*, a new cyprinoid fish from Borneo, and *Cobitophis*, a new genus of Bornean Cobitidae. *American Museum Novitates*, **265**: 1–4.

Nijssen, H., van Tuijl, L. & Isbrücker, I.J.H. 1982. A catalogue of the type-specimens of recent fishes in the Institute of Taxonomic Zoology (Zoölogisch Museum), University of Amsterdam, The Netherlands. *Verslagen en Technische Gegevens, Instituut voor Taxonomische Zoölogie, Universiteit van Amsterdam*, **33**: 1–173.

Ott, G. 1990a. Eine Plattschmerle aus Hongkong — *Liniparhomaloptera disparis*. *Die Aquarien- und Terrarien-Zeitschrift*, **43**: 399–402.

Ott, G. 1990b. *Pangio muraeniformis* (de Beaufort, 1933) — taggögat som förvillat manga. *Akvariet* (Stockholm), **1990**(4): 122–123.

Perugia, A. 1893. Di alcuni pesci raccolti in Sumatra dal dott. Elio Modigliani. *Annali del Museo Civico di Storia Naturale di Genova*, (2)**13**: 241–247.

Sirimontaporn, P. 1984. *Fishes in Songkhla Lake. 1. Fishes collected in the years 1981–83*. 91 pp. Japanese Int. Coop. Agency & Natn. Inst. Coast. Aquacult.

Smith, H.M. 1933. Contributions to the ichthyology of Siam. 2–4. *Journal of the Siam Society, Natural History Supplement*, **9**: 53–87.

Steinle, C.-P. & Schmidt, J.B. 1989. 'Einfarbige' Dornaugen. *Die Aquarien-und Terrarien-Zeitschrift*, **42**: 651.

Taki, Y. 1974. *Fishes of the Lao Mekong basin*. 232 pp. U.S.A. I.D. Mission to Laos, Agriculture Division, Vientiane.

Tortonese, E. 1961. Catalogo dei tipi di pesci del Museo Civico di Storia Naturale di Genova (parte 1). *Annali del Museo Civico di Storia Naturale di Genova*, **72**: 179–191.

Tweedie, M.W.F. 1956. Notes on Malayan fresh-water fishes. 6. A method of collecting small fishes, especially loaches. 7. Cobitidae and Cyprinidae in the Raffles Museum collection. 8. *Wallago miostoma*. *Bulletin of the Raffles Museum*, **27**: 56–64.

Zakaria-Ismail, M. 1984. Checklist of fishes of Taman Negara. *Malayan Naturalist*, **37**: 21–26.

(3) Darrell J. Siebert
*Department of Zoology, The Natural History Museum, Cromwell Road,
London SW7 5BD, U.K.*

In their comments (see (1) and (2) above), Ng, Munro & Lim and Kottelat have opposed our (Burridge, Siebert & Ferraris) petition seeking to conserve the generic name *Acanthophthalmus* van Hasselt in Temminck, 1824. Their opposition may be categorized as follows: (1) the change from *Acanthophthalmus* to *Pangio* Blyth, 1860 causes little confusion; (2) the taxonomy of these fish is uncertain and changes can be expected in the future; (3) simplicity. I will answer each of these points, and also mention the apparent misunderstanding by Ng et al. of the purpose of the list of references which we submitted to the Commission Secretariat.

Ng et al. and Kottelat do not disagree with the observation that *Acanthophthalmus* had been in use for approximately 130 years prior to Kottelat's (1987) paper on the fish names proposed by van Hasselt. They contend that coolie loaches have been studied so little that there is not a large literature concerned with them, and that a change of generic name will cause little confusion. We believe that any such confusion is undesirable and unnecessary. As stated in the Preamble of the Code (1985, p. 3): 'The object of the Code is to promote stability and universality in the scientific names of animals and to ensure that the name of each taxon is unique and distinct. All its provisions and recommendations are subservient to these ends and none restricts the freedom of taxonomic thought or action'. Our petition is wholly in the spirit of this statement of purpose. We request that the nomenclatural stability of *Acanthophthalmus* be maintained by designating *Cobitis kuhlii* Valenciennes in Cuvier & Valenciennes, 1846 as the type species, in agreement with the sense in which the genus has consistently been used since Bleeker (1863). The references by Ng et al. and Kottelat to the acceptance of a name change for a fish (*Oncorhynchus mykiss*, the rainbow trout) with a large literature is irrelevant to our application, both because rulings of the Commission are made without reference to precedence or 'case law' (Code, 1985, p. xiv), and because this change of name stemmed from a modified taxonomy. The present case is concerned solely with a nomenclatural matter; it does not derive from a change in the taxonomy of the coolie loaches.

Both Ng et al. and Kottelat mention that they believe the taxonomy of some of the species at present included in *Acanthophthalmus* to be unstable. This may be true, but is irrelevant. The Code relates only to nomenclatural issues, and our petition is concerned solely with the name of the genus and does not restrict taxonomy in any way.

Kottelat explains that when he realized that *Acantophthalmus* van Hasselt, 1823 was a junior objective synonym of *Cobitis* Linnaeus, 1758 he felt the simple and direct solution was to replace *Acantophthalmus* with *Pangio* Blyth, 1860. This solution may be simple and direct but it results in confusion and fails to maintain stability of nomenclature, and it is stability that we are seeking. Kottelat himself (1987, pp. 371–372) noted that loss of *Acanthophthalmus* van Hasselt, 1824 'will result in some nomenclatural modifications which are not exactly in agreement with the principle of stability of nomenclature'.

Ng et al. have apparently mistaken the submission of a list of references to the Commission Secretariat as a form of argument. Our petition rests on the merit of nearly 130 years use of the name *Acanthophthalmus* prior to 1987, and our list was submitted to document this use. The list is publicly available by request to the Secretariat; it consists of works by ichthyologists such as Boulenger, Günther, Inger & Chin, Roberts, Smith and Weber & de Beaufort, and does not include mentions of the name in the 'popular aquarist' literature, as supposed by Ng et al.

The objections by Ng et al. and Kottelat to our petition amount to nothing more than a tolerance for confusion in the use of the generic name for the coolie loaches. We regard this as both undesirable and unnecessary, and believe our application to conserve more than a century and a quarter's consistent usage of the name *Acanthophthalmus* van Hasselt, 1824 should stand.

(4) Harro Hieronimus
Nachtigallenweg 52, D-5650 Solingen 1, Germany

Jürgen Schmidt
Mersch 9, D-4708 Kamen, Germany

Christian P. Steinle
Markbeinweg 41, D-7844 Neuenburg, Germany

Since the name *Acantophthalmus* van Hasselt, 1823 had been placed on the Official Index, two of us (Steinle & Schmidt, 1989) followed Kottelat in using *Pangio* Blyth, 1860 (see comment (2) above). However, the fundamental aim of the Code is '... to provide the maximum universality and continuity in the scientific names of animals...' (Code, 1985, p. xiii). To avoid confusion and discontinuity we strongly support the application to conserve the name *Acanthophthalmus* van Hasselt, 1824 for the coolie loaches, instead of replacing it by *Pangio*, a name unused for more than 125 years.

(5) Anthea Gentry
The Secretariat, International Commission on Zoological Nomenclature

In addition to the references cited by Burridge, Siebert & Ferraris in their application (BZN **47**: 120–121: Nelson, 1985; Roberts, 1989; Smith, 1965; Weber & de Beaufort, 1916), the Commission Secretariat holds a list of representative references which demonstrate usage of the generic name *Acanthophthalmus* van Hasselt in Temminck, 1824 (referred to in comments (1) and (3) above). This consists of the following:

Boulenger, G.A. 1904. Fishes (systematic account of Teleostei). Pp. 541–727 *in* Harmer, S.F. & Shipley, A.E. (Eds.), *The Cambridge Natural History*, vol. 7. xvii, 760 pp. MacMillan, London. (P. 582).

Day, F. 1889. Fishes, vol. 1 *in* Blanford, W.T. (Ed.), *The fauna of British India, including Ceylon and Burma*. xviii, 548 pp. The Secretary of State for India in Council, London. (P. 222).

Fraser-Brunner, A. 1940. On some fishes of the genus *Acanthophthalmus*, with description of a new species. *Annals and Magazine of Natural History*, (11)**6**(32): 170–175.

Günther, A. 1868. *Catalogue of the fishes in the British Museum*, vol. 7. xx, 512 pp. British Museum, London. (P. 370).

Inger, R.F. & Chin, P.K. 1962. The fresh-water fishes of North Borneo. *Fieldiana: Zoology*, **45**: 1–268. (Pp. 118–123).

Jayaram, K.C. 1981. *The freshwater fishes of India, Pakistan, Bangladesh, Burma and Sri Lanka — a handbook*. xxii, 475 pp., 13 pls. Zoological Survey of India, Calcutta. (Pp. 177, 179).

Jordan, D.S. & Evermann, B.W. 1917. *The genera of fishes, part 1 (from Linnaeus to Cuvier, 1758–1833, seventy-five years, with the accepted type of each). A contribution to the stability of scientific nomenclature.* 161 pp. Leland Stanford Junior University Publications, Stanford University, California. (P. 116).
Mohsin, A.K.M. & Ambak, M.A. 1983. *Freshwater fishes of Peninsular Malaysia.* xvii, 284 pp. Penerbit University, Pertanian Malaysia. (P. 116).
Suvatti, C. 1981. *Fishes of Thailand.* 379 pp., 138 pls. Royal Institute, Thailand. (Pp. 31–33, 237).
Wheeler, A. 1979. *Fishes of the world, an illustrated dictionary.* xiv, 366 pp., 501 photos., 700 figs. Ferndale Editions, London. (First published 1975). (P. 100).

The valid name of the type species (by monotypy) of *Pangio* Blyth, 1860 (p. 169) is *Cobitis pangia* Hamilton, 1822 (p. 355), *C. cinnamomea* McClelland, 1839 (p. 304) being an unjustified replacement name. Blyth (1860, p. 169) recorded *pangia* (misspelled as '*pangio*') and *cinnamomea* as synonyms and adopted the latter as the type, as noted by Eschmeyer (1990, p. 290).

Additional references

Eschmeyer, W.N. 1990. *Catalog of the genera of recent fishes.* 697 pp. California Academy of Sciences, San Francisco.
Hamilton (formerly **Buchanan**), **F.** 1822. *An account of the fishes found in the river Ganges and its branches.* vii, 405 pp. (text), 39 pls. (atlas). Constable, Edinburgh.

OPINION 1623

Risomurex Olsson & McGinty, 1958 (Mollusca, Gastropoda): *Ricinula deformis* Reeve, 1846 designated as the type species

Ruling

(1) Under the plenary powers all previous fixations of type species for the nominal genus *Risomurex* Olsson & McGinty, 1958 are hereby set aside and *Ricinula deformis* Reeve, 1846 is designated as the type species.

(2) The name *Risomurex* Olsson & McGinty, 1958 (gender: masculine), type species by designation under the plenary powers in (1) above *Ricinula deformis* Reeve, 1846, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *deformis* Reeve, 1846, as published in the binomen *Ricinula deformis* (specific name of the type species of *Risomurex* Olsson & McGinty, 1958), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2507

An application to designate *Risomurex mosquitensis* Kemperman & Coomans, 1984 as the type species of *Risomurex* Olsson & McGinty, 1958, in place of the misidentified '*Engina schrammi* Crosse, 1863', was received from Drs Th. C.H. Kemperman & H.E. Coomans (*Instituut voor Taxonomische Zoölogie, Amsterdam, The Netherlands*) on 4 February 1985. After correspondence the case was published in BZN **43**: 191–192 (July 1986). Notice of the case was sent to appropriate journals.

Copies of a comment by Drs E.H. Vokes (*Tulane University, New Orleans, U.S.A.*) & R. Houart (*Institut Royal des Sciences Naturelles, Brussels, Belgium*), in which a modification to the solution of the problem was proposed, were sent to the authors of the application in 1986 and again in 1987. The authors did not reply and the comment was eventually published in BZN **46**: 187 (September 1989); copies were sent to the applicants but again there was no reply.

Vokes & Houart considered that Kemperman & Coomans's (1984) species *Risomurex mosquitensis* had been described much earlier by Reeve (1846, *Ricinula*, pl. 6, fig. 44, text) as *Ricinula deformis*. Vokes & Houart therefore proposed that *Ricinula deformis* Reeve, 1846, the species described as '*Engina schrammi*' by Olsson & McGinty (1958) and a senior subjective synonym of *Risomurex mosquitensis*, should be designated the type species of *Risomurex*, in accord with their 1986 revision of the genus (see BZN **46**: 187). The holotype of *deformis*, no. 1968472 in the Natural History Museum, London, was illustrated by Reeve (1846, pl. 6, fig. 44) and by Vokes & Houart (1986, pl. 2, fig. 1 (incorrectly cited as specimen no. 196872)).

It was noted on the voting paper that although *Engina schrammi* Crosse, 1863, the nominal type species of *Risomurex*, is included in the genus, neither the original authors nor Vokes & Houart (1968, p. 68; BZN **46**: 187) considered this nominal species to be taxonomically suitable as the type. Vokes & Houart also said that *E. schrammi* is a junior subjective synonym of *Ricinula rosea* Reeve, 1846, and is represented only by the holotype.

Two alternatives were offered for voting: proposal B, the original proposals by Kemperman & Coomans (BZN **43**: 191–192), and proposal C, the designation of *Ricinula deformis* Reeve, 1846 as the type species of *Risomurex* as in the revised proposals by Vokes & Houart (BZN **46**: 187). Both B and C involved the use of the plenary powers and agreement for this was sought in proposal A. Commissioners were invited to record a preference for B or C even if voting against A.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote. At the close of the voting period on 1 December 1990 the votes were as follows:

Proposal A. Affirmative votes — 25: Bayer, Bock, Cocks, Corliss, Dupuis, Hahn, Heppell, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Cogger and Holthuis.

Proposal B — 1: Kabata.

Proposal C — 24: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink.

No votes were received from Halvorsen.

No vote for proposal B or C was received from Starobogatov.

Voting against proposal A, Cogger commented: 'Different specialists disagree on the status or subjective synonymy of *Engina schrammi* Crosse, 1863, and as neither proposal B or C addresses the issues of stability or universality, replacement of the nominal type species is unwarranted', and Holthuis noted: '*Engina schrammi* is a species of the genus *Risomurex*, and since its holotype is extant there seems to be no good reason for the use of the plenary powers to make a different nominal species the type of the genus'. Voting for the designation of *Ricinula deformis* as the type species, Thompson commented: 'If *mosquitensis* is a junior synonym of *deformis* and *deformis* corresponds to the species that Olsson & McGinty based their genus on, then it should be designated the type. Why burden users with another synonymy?'.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

deformis, *Risomurex*, Reeve, 1846, *Conchologia iconica: or, illustrations of the shells of molluscous animals*, *Ricinula*, pl. 6, fig. 44, text.

Risomurex Olsson & McGinty, 1958, *Bulletin of American Paleontology*, **39**(177): 40.

OPINION 1624

Ixodes angustus Neumann, 1899 and *I. woodi* Bishopp, 1911 (Arachnida, Acari): specific names conserved by the replacement of the holotype of *I. angustus* by a neotype

Ruling

(1) Under the plenary powers it is hereby ruled that:

(a) the type status of the holotype of *Ixodes angustus* Neumann, 1899 is suppressed;

(b) the specimen referred to in BZN **46**: 168, para. 8, namely cat. no. RML 49479 in the U.S. National Tick collection, Department of Entomology, Museum Support Center, Smithsonian Institution, Washington, D.C., U.S.A. is hereby designated as the neotype of *Ixodes angustus* Neumann, 1899.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *angustus* Neumann, 1899, as published in the binomen *Ixodes angustus* and as defined by the neotype designated in (1)(b) above;

(b) *woodi* Bishopp, 1911, as published in the trinomen *Ixodes angustus* var. *woodi*.

History of Case 2696

An application for the designation of a replacement neotype for *Ixodes angustus* Neumann, 1899 was received from Drs Richard G. Robbins & James E. Keirans (*Department of Health and Human Services, National Institute of Allergy and Infectious Diseases, c/o Smithsonian Institution, Washington, D.C., U.S.A.*) on 6 December 1988. After correspondence the case was published in BZN **46**: 167–169 (September 1989). Notice of the case was sent to appropriate journals. The proposal was supported by the U.S. National Institute of Allergy and Infectious Diseases (see para. 10 of the application). A comment in support from Dr G.B. White (Editor, *Medical & Veterinary Medicine*) was published in BZN **47**: 211–212 (September 1990), and was circulated to the members of the Commission with the voting papers.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 168. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Heppell, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Holthuis and Starobogatov.

No vote was received from Halvorsen.

Dupuis abstained because the comment in support by G.B. White (see above) was published during the voting period. Starobogatov commented that it was not good practice to replace a holotype with a neotype.

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

angustus, *Ixodes*, Neumann, 1899, *Mémoires de la Société Zoologique de France*, **12**: 136.
woodi, *Ixodes*, Bishopp, 1911, *Proceedings of the Biological Society of Washington*, **24**: 205.

OPINION 1625

Thyene Simon, 1885 (Arachnida, Araneae): given precedence over *Mithion* Simon, 1884

Ruling

(1) Under the plenary powers the generic name *Thyene* Simon, 1885 is hereby given precedence over *Mithion* Simon, 1884 whenever the two names are considered to be synonyms.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

- (a) *Thyene* Simon, 1885 (gender: feminine), type species by monotypy *Attus imperialis* Rossi, 1847, with the endorsement that it is to be given precedence over *Mithion* Simon, 1884 whenever the two names are considered to be synonyms;
- (b) *Mithion* Simon, 1884 (gender: masculine), type species by monotypy *Mithion semiargenteus* Simon, 1884, with the endorsement that it is not to be given priority over *Thyene* Simon, 1885 whenever the two names are considered to be synonyms.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *imperialis* Rossi, 1847, as published in the binomen *Attus imperialis* (specific name of the type species of *Thyene* Simon, 1885);
- (b) *semiargenteus* Simon, 1884, as published in the binomen *Mithion semiargenteus* (specific name of the type species of *Mithion* Simon, 1884).

History of Case 2649

An application for the conservation of the generic name *Thyene* Simon, 1885 by suppressing the little used senior subjective synonym *Mithion* Simon, 1884 was received from Dr Jerzy Prószyński (*Zakład Zoologii WSRP, Siedlce, Poland*) on 4 March 1988. After correspondence the case was published in BZN **46**: 112–113 (June 1989). Notice of the case was sent to appropriate journals. No comments were received.

The application was sent to the Commission for voting on 1 March 1990. The proposals on BZN **46**: 113 received a majority (15 votes 'For', 11 'Against', with 1 abstention and 1 absentee), but failed to reach the two-thirds majority required for the suppression of *Mithion*. On 1 September 1990 the application was submitted for a revote, under the Bylaws of the Commission.

It was noted on the voting paper that *Mithion semiargenteus* Simon, 1884, the type species of *Mithion* Simon, 1884, is said to be congeneric, but not synonymous, with *T. imperialis* (Rossi, 1847), the type species of *Thyene* Simon, 1885. *T. imperialis* is known from the whole Mediterranean region; in the European part it occurs as the single representative of the genus and there is no doubt of its identity and description. There are some 34 species placed in *Thyene*. It was also noted on the voting paper that the status of *Mithion* should be considered with regard only to its type species *M. semiargenteus*; the other species which have been included may not even be congeneric with *semiargenteus*. A representative list of 13 references, from 1885 to 1987, showing usage of *Thyene* is held by the Commission Secretariat.

Four Commissioners (Cogger, Holthuis, Kraus and Mroczkowski) who voted in March 1990 against the original application, suggested that to give *Thyene* precedence over *Mithion* would be preferable to suppressing *Mithion*. This course would mean that authors who considered the names to be synonyms would use *Thyene* instead of *Mithion*, while the latter name would be used only by workers who did not consider *M. semiargenteus* to be congeneric with *T. imperialis*. Both names would be placed on the Official List of Generic Names.

In September 1990, both alternatives, suppression of *Mithion* (proposal B), and precedence of *Thyene* over *Mithion* (proposal C), were offered for voting. Both courses involved the use of the plenary powers, and in proposal A the Commission was asked to agree to this. Commissioners were invited to record a preference for B or C even if voting against A.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote. At the close of the voting period on 1 December 1990 the votes were as follows:

Proposal A. Affirmative votes — 21: Bayer, Cocks, Cogger, Corliss, Hahn, Heppell, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 5: Bock, Holthuis, Lehtinen, Schuster and Thompson.

Proposal B — 6: Heppell, Kabata, Martins de Souza, Nielsen, Ride and Willink.

Proposal C — 16: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Kraus, Macpherson, Mahnert, Minelli, Mroczkowski, Nye, Savage, Schuster, Trjapitzin and Uéno.

No votes were received from Halvorsen. Dupuis abstained: he did not trust Simon's judgement in matters of nomenclature (see comment on BZN **47**: 223). No vote for proposal B or C was received from Starobogatov. Lehtinen said that since the syntypes of the type species were preserved in a major museum, the senior name *Mithion* should not be rejected simply because more species had been included in the junior nominal genus. Thompson considered that since the original proposals failed to reach a two-thirds majority in the first vote in March 1990, the Principle of Priority should not be set aside and the older name *Mithion* should be used. Martins de Souza commented that to give *Thyene* precedence over *Mithion*, with the latter name to be used only by workers who did not consider *M. semiargenteus* to be congeneric with *T. imperialis*, would cause confusion in the future.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

imperialis, *Attus*, Rossi, 1847, *Naturwissenschaftliche Abhandlungen* (Wien, Ed. W. Haidinger), **1**: 12.

Mithion Simon, 1884, *Bulletin de la Société Zoologique de France*, **9**: 4.

semiargenteus, *Mithion*, Simon, 1884, *Bulletin de la Société Zoologique de France*, **9**: 4.

Thyene Simon, 1885, *Bulletin de la Société Zoologique de France*, **10**: 4.

OPINION 1626

Corisa verticalis Fieber, 1851 (currently *Trichocorixa verticalis*; Insecta, Heteroptera): specific name conserved

Ruling

(1) Under the plenary powers the specific name *lineata* Fabricius, 1787, as published in the binomen *Sigara lineata*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *verticalis* Fieber, 1851, as published in the binomen *Corisa verticalis*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *lineata* Fabricius, 1787, as published in the binomen *Sigara lineata* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2685

An application for the conservation of the specific name of *Corisa verticalis* Fieber, 1851, was received from Dr Antti Jansson (*Zoological Museum, University of Helsinki, Finland*) on 14 November 1988. After correspondence the case was published in BZN **46**: 239–240 (December 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 239. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kraus, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 3: Kabata, Lehtinen and Macpherson.

No vote was received from Halvorsen.

Kabata preferred not to set aside the Principle of Priority and considered that use of the older name would not cause undue inconvenience.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

lineata, *Sigara*, Fabricius, 1787, *Mantissa insectorum sistens species nuper detectas adiectas synonymis, observationibus, descriptionibus, emendationibus*, vol. 2, p. 276.

verticalis, *Corisa*, Fieber, 1851, *Species generis Corisa*, p. 24 (preprint from *Abhandlungen der Böhmischen Gesellschaft der Wissenschaften*, **7** (1852), p. 236).

OPINION 1627

Saissetia Déplanche, 1859 (Insecta, Homoptera): *Lecanium coffeae* Walker, 1852 designated as the type species

Ruling

(1) Under the plenary powers it is hereby ruled that:

(a) the specific name *coffeae* Déplanche, 1859, as published in the binomen *Saissetia coffeae*, is suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy;

(b) all previous fixations of type species for the nominal genus *Saissetia*, Déplanche, 1859 are hereby set aside and *Lecanium coffeae* Walker, 1852 is designated as the type species.

(2) The name *Saissetia* Déplanche, 1859 (gender: feminine), type species by designation under the plenary powers in (1)(b) above *Lecanium coffeae* Walker, 1852, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *coffeae* Walker, 1852, as published in the binomen *Lecanium coffeae* (specific name of the type species of *Saissetia* Déplanche, 1859), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *coffeae* Déplanche, 1859, as published in the binomen *Saissetia coffeae* and as suppressed in (1)(a) above, is hereby placed on the Official Index of Rejected and Invalid Specfic Names in Zoology.

History of Case 2677

An application for the designation of *Lecanium coffeae* Walker, 1852 as the type species of *Saissetia* Déplanche, 1859 was received from Dr Yair Ben-Dov (*Agricultural Research Organisation, Bet Dagan, Israel*) on 3 August 1988. After correspondence the case was published in BZN **46**: 114–118 (June 1989). Notice of the case was sent to appropriate journals. Commments in support from Dr Giovanni De Lotto (*Via E. Fermi, Siderno, Italy*) and from Dr Chris Hodgson (*Wye College, University of London, Kent, U.K.*) were published in BZN **47**: 47–48 (March 1990). A further comment in support was received from Dr D.J. Williams (*c/o The Natural History Museum, London, U.K.*).

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 116–117. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 23: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Uéno, Willink

Negative votes — 2: Dupuis and Lehtinen.

No votes were received from Halvorsen and Trjapitzin.

Thompson abstained, commenting: 'Déplanche published his description in a 'weekly newspaper' (para. 1 of the application); the name *Saissetia* is not available as such works do not meet the criteria of Article 8 of the Code'. [The *Messager de Tahiti* was an official gazette as well as a 'newspaper'. The next publication of *Saissetia* was Déplanche *in* Eudes-Deslongchamps, 1859 (cf. BZN **46**: 115, para. 4)]. Dupuis noted: 'Il fallait supprimer à la fois l'epithéte spécifique et le nom générique de PSEUDOCOCCIDAE indéterminable de Déplanche et attribuer *Saissetia* (fam. COCCIDAE) à Cockerell (1899)'. Lehtinen considered that the stabilization of an obscurely published name in the wrong family could not be accepted; no information had been given about the possible existence of the suggested type species in the original type locality. If the name *Saissetia* were conserved, authorship should be attributed to an entomologist who provided a description of the genus within the COCCIDAE, but it would be better to reject the name. Although voting for the proposals, Heppell commented: 'I am in general agreement with the proposals to interpret the generic name *Saissetia* in the sense of a coccid rather than a pseudococcid homopteran. My objection to the means by which this desired end is to be achieved is that it seems to me totally inappropriate to maintain the attribution of the name (in the sense of the coccid genus) to Déplanche, 1859, now it has been conclusively shown that that reference concerns only a pseudococcid genus of the same name. Déplanche's genus, being monotypic, is co-extensive with his nominal species *S. coffeae*, the name of which is being suppressed. There is no other basis on which to reinterpret Déplanche's genus. I believe we should have suppressed *Saissetia* Déplanche in order to recognise subsequent usage of that name in the sense of the coccid *Lecanium coffeae* Walker'.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

coffeae, *Lecanium*, Walker, 1852, *List of the specimens of homopterous insects in the collection of the British Museum*, part 4, p. 1079.

coffeae, *Saissetia*, Déplanche, 1859, *Messager de Tahiti, Papeete*, **8**(no. 9): 7.

Saissetia Déplanche, 1859, *Messager de Tahiti, Papeete*, **8**(no. 9): 7.

OPINION 1628

Castiarina Gory & Laporte, 1837 (Insecta, Coleoptera): conserved

Ruling

(1) Under the plenary powers the generic name *Polychroma* Dejean, 1836 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Castiarina* Gory & Laporte, 1837 (gender: feminine), type species by subsequent designation by Barker (1979) *Stigmodera pertii* Gory & Laporte, 1837, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *pertii* Gory & Laporte, 1837, as published in the binomen *Stigmodera pertii* (specific name of the type species of *Castiarina* Gory & Laporte, 1837), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Polychroma* Dejean, 1836, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 2672

An application for the conservation of *Castiarina* Gory & Laporte, 1837 was received from Dr J.A. Gardner (*Waite Agricultural Research Institute, University of Adelaide, South Australia*) on 25 July 1988 and published in BZN **46**: 170–172 (September 1989). Notice of the case was sent to appropriate journals.

It was noted on the voting paper that *Polychroma* Dejean, 1836 was without a type species. It was not possible, however, to select a type species for *Polychroma* from among the species that Dejean placed in the genus and thereby render *Polychroma* and *Castiarina* not synonymous. Dr Gardner supplied the following additional information: 'Nine nominal species listed by Dejean under *Polychroma* are currently assigned to *Castiarina*. They were originally placed in *Buprestis* Linnaeus, 1758 by Donovan (1805) and Kirby (1818) before that genus was split by Eschscholtz in 1829. The tenth name, *octosignata* Gory, which Dejean synonymised with *scalaris*, I have not been able to confirm. Thus, none of the species have been associated with any genus other than *Buprestis*, then subsequently *Polychroma* or *Stigmodera* (*Castiarina*). I also note that Dejean attributed four of the specific names to himself, but that Gory & Laporte (1837) and Barker (1979, 1986) considered Boisduval (1835) to be the authors of those names, not Dejean'.

Comments in support of the application from Charles L. Bellamy (*National Museum of Natural History, Smithsonian Institution, Washington, D.C., U.S.A.*) and G.H. Nelson (*College of Osteopathic Medicine of the Pacific, Pomona, California, U.S.A.*) were noted on the voting paper. The latter commented that 'in the interest of continuing the use of a generic name so long in general use and acceptance and one that contains so many species names, I heartily support Dr Gardner's request.'

The paper referred to in para. 9 of the application (p. 171) as 'in press' has since been published:

Gardner, J.A. 1989. Revision of the genera of the tribe Stigmoderini (Coleoptera: Buprestidae) with a discussion of phylogenetic relationships. *Invertebrate Taxonomy*, **3**(3): 291–361.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 171. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Kabata and Nye.

No vote was received from Halvorsen.

Nye supported the conservation of *Castiarina* Gory & Laporte, 1837 but would have preferred use of the relative precedence procedure in case the name *Polychroma* Dejean, 1836 should be required if the genus is further divided.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Castiarina Gory & Laporte, 1837, *Histoire naturelle et iconographie des insectes coléoptères, publiée par monographies séparées*. Texte vol. 2. Suite aux Buprestides, p. 22.

pertii, *Stigmodera*, Gory & Laporte, 1837, *Histoire naturelle et iconographie des insectes coléoptères, publiée par monographies séparées*. Texte vol. 2. Suite aux Buprestides, p. 23.

Polychroma Dejean, 1836, *Catalogue des coléoptères de la collection de M. le Comte Dejean*. Troisième edition, revue, corrigée et augmentée, p. 89.

OPINION 1629

Helophorus brevipalpis Bedel, 1881 (Insecta, Coleoptera): given precedence over *Helophorus creticus* Kiesenwetter, 1858

Ruling

(1) Under the plenary powers the specific name *brevipalpis* Bedel, 1881, as published in the binomen *Helophorus brevipalpis*, is hereby given precedence over the specific name *creticus* Kiesenwetter, 1858, as published in the binomen *Helophorus creticus*, whenever the two names are considered to be synonyms.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *brevipalpis* Bedel, 1881, as published in the binomen *Helophorus brevipalpis*, with the endorsement that it is to be given precedence over *creticus* Kiesenwetter, 1858, as published in the binomen *Helophorus creticus*, whenever the two names are considered to be synonyms.

(b) *creticus* Kiesenwetter, 1858, as published in the binomen *Helophorus creticus*, with the endorsement that it is not to be given priority over *brevipalpis* Bedel, 1881, as published in the binomen *Helophorus brevipalpis*, whenever the two names are considered to be synonyms.

History of Case 2690

An application for *Helophorus brevipalpis* Bedel, 1881 to be given precedence over *H. creticus* Kiesenwetter, 1858 was received from Dr R.B. Angus (*Royal Holloway and Bedford New College, University of London, Egham, Surrey, U.K.*) on 11 November 1988. After correspondence the case was published in BZN **46**: 173–175 (September 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 174. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 23: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Kabata, Kraus, Lehtinen, Mahnert, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 4: Heppell, Holthuis, Macpherson and Martins de Souza.

No vote was received from Halvorsen.

Ride would have preferred to suppress the older name. Heppell commented: ‘As not a single comment was received in support of this application, and as the species concerned are not stated to be of any economic importance whatsoever, I am not convinced that use of the plenary powers for conservation of the junior name is justified’. Martins de Souza commented that the application recognized that *Helophorus creticus* and *H. brevipalpis* might eventually prove to represent distinct taxa (para. 7) and that subspecies of *brevipalpis* had previously been described (para. 6); a decision in favour of the application could be temporary and was therefore unacceptable.

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

brevipalpis, *Helophorus*, Bedel, 1881, *Annales de la Société Entomologique de France*, **6** (Supplement), p. 301.

creticus, *Helophorus*, Kiesenwetter, 1858, *Berliner Entomologische Zeitschrift*, **2**: 40.

OPINION 1630

Helophorus obscurellus Poppius, 1907 (Insecta, Coleoptera): given precedence over *Helophorus fausti* Kuwert, 1887

Ruling

(1) Under the plenary powers the specific name *obscurellus* Poppius, 1907, as published in the binomen *Helophorus (Trichelophorus) obscurellus*, is hereby given precedence over the specific name *fausti* Kuwert, 1887, as published in the binomen *Helophorus fausti*, whenever the two names are considered to be synonyms.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *obscurellus* Poppius, 1907, as published in the binomen *Helophorus (Trichelophorus) obscurellus*, with the endorsement that it is to be given precedence over *fausti* Kuwert, 1887, as published in the binomen *Helophorus fausti*, whenever the two names are considered to be synonyms;
- (b) *fausti* Kuwert, 1887, as published in the binomen *Helophorus fausti*, with the endorsement that it is not be given priority over *obscurellus* Poppius, 1907, as published in the binomen *Helophorus (Trichelophorus) obscurellus*, whenever the two names are considered to be synonyms.

History of Case 2689

An application for *Helophorus obscurellus* Poppius, 1907 to be given precedence over the senior subjective synonym *H. fausti* Kuwert, 1887 was received from Dr R.B. Angus (*Royal Holloway and Bedford New College, University of London, Egham, Surrey, U.K.*) on 11 November 1988. After correspondence the case was published in BZN **46**: 176–178 (September 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 177. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 23: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Kabata, Kraus, Lehtinen, Mahnert, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 4: Heppell, Holthuis, Macpherson and Martins de Souza.

No vote was received from Halvorsen.

Ride would have preferred to suppress *Helophorus fausti*. Heppell commented: 'The author's account of the taxonomy relating to this case seems to me to be a good argument for rescuing *H. fausti* from obscurity. Nothing is stated to be wrong with the original publication or the extant type material. Coleopterists have been alerted to its current synonymy with *H. obscurellus* and the latter name remains available for possible use for a sibling species if recognised as such in the future. I am not convinced that the alleged inconvenience is sufficient in this case to warrant setting aside the provisions of the Code.' Martins de Souza commented that the application recognized that *H. obscurellus* and *H. fausti* might eventually prove to represent distinct taxa, and that a decision in favour of the application could be temporary and was therefore unacceptable.

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

fausti, Helophorus, Kuwert, 1887, *Wiener entomologische Zeitung*, **6**: 165.

obscurellus, Helophorus, Poppius, 1907, *Ofversigt af Finska Vetenskaps-Societetens Förhandlingar*, **49**: 3.

OPINION 1631

Ochthebius Leach, 1815 (Insecta, Coleoptera): *Elophorus marinus* Paykull, 1798 designated as the type species

Ruling

(1) Under the plenary powers all designations of type species for the nominal genus *Ochthebius* Leach, 1815 before that by d'Orchymont (1942) of *Elophorus marinus* Paykull, 1798 are hereby set aside.

(2) The name *Ochthebius* Leach, 1815 (gender: masculine), type species by designation by d'Orchymont (1942), by the ruling in (1) above, *Elophorus marinus* Paykull, 1798, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *marinus* Paykull, 1798, as published in the binomen *Elophorus marinus* (specific name of the type species of *Ochthebius* Leach, 1815) is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2676

An application for the designation of *Elophorus marinus* Paykull, 1798 as the type species of *Ochthebius* Leach, 1815 was received from Dr M. Hansen (*Zoologisk Museum, København, Denmark*) on 3 August 1988. After correspondence the case was published in BZN **46**: 244–246 (December 1989). Notice of the case was sent to appropriate journals. A comment from F.C. Thompson (*Systematic Entomology Laboratory, USDA, Washington, U.S.A.*) pointed out that there was an earlier type species designation for *Ochthebius* than that by Brullé (1835) (cf. para. 2 of the application). Guérin (1827, pp. 50–51) also designated *Elophorus riparius* (Illiger, 1798) (= *Hydraena riparia* Kugelann, 1794) as the type species, with *Elophorus pygmaeus* Fabricius, 1792 as a synonym. This earlier designation did not affect the issue of the case.

Guérin, F.-E. 1827. Ochtebie. *Ochtebius* [sic]. Pp. 50–51 in Bory de Saint-Vincent, J.B.G.M. (Ed.), *Dictionnaire classique d'histoire naturelle, par Messieurs Audouin...*, vol. 12 (NUA-PAM). 634 pp. Rey & Gravier, Paris.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 245. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kabata, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No votes were received from Halvorsen and Kraus.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

marinus, *Elophorus*, Paykull, 1798, *Fauna Suecica, Insecta*, vol. 1[8], p. 245.

Ochthebius Leach, 1815, Entomology. *In* Brewster, D., *Edinburgh Encyclopaedia*, vol. 9, pp. 95–96.

The following is the reference for the designation of *Elophorus marinus* as the type species of *Ochthebius*:
Orchymont, A. d'. 1942. *Bulletin du Musée royal d'Histoire naturelle de Belgique*, **18**(39): 2.

OPINION 1632

Exoprosopa Macquart, 1840 (Insecta, Diptera): *Anthrax pandora* Fabricius, 1805 confirmed as the type species

Ruling

(1) Under the plenary powers all designations of type species for the nominal genus *Exoprosopa* Macquart, 1840 before that by Coquillett (1910) of *Anthrax pandora* Fabricius, 1905 are hereby set aside.

(2) The name *Exoprosopa* Macquart, 1840 (gender: feminine), type species by subsequent designation by Coquillett (1910), by the ruling in (1) above, *Anthrax pandora* Fabricius, 1805, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *pandora* Fabricius, 1805, as published in the binomen *Anthrax pandora* (specific name of the type species of *Exoprosopa* Macquart, 1840), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2694

An application for the designation of *Anthrax pandora* Fabricius, 1805 as the type species of *Exoprosopa* Macquart, 1840 was received from Drs Neal L. Evenhuis (*Gressitt Center for Research in Entomology, Bishop Museum, Honolulu, U.S.A.*) & David J. Greathead (*CAB International Institute of Biological Control, Silwood Park, Ascot, Berks., U.K.*) on 23 November 1988. After correspondence the case was published in BZN **46**: 250–251 (December 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 251. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No vote was received from Halvorsen.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Exoprosopa Macquart, 1840, *Diptères exotiques nouveaux ou peu connus*, vol. 2, part 1, p. 35.

pandora, Anthrax, Fabricius, 1805, *Systema antliatorum secundum ordines genera, species, adjectis synonymis, locis, observationibus, descriptionibus*, p. 121.

The following is the reference for the designation of *Anthrax pandora* as the type species of *Exoprosopa*:

Coquillett, D.W. 1910. *Proceedings of the United States Museum of Natural History*, **37**: 544.

OPINION 1633

Haplocanthosaurus Hatcher, 1903 (Reptilia, Saurischia): conserved

Ruling

(1) Under the plenary powers the generic name *Haplocanthus* Hatcher, 1903 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Haplocanthosaurus* Hatcher, 1903 (gender: masculine), type species, by monotypy of the replaced nominal genus *Haplocanthus*, *Haplocanthus priscus* Hatcher, 1903, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *priscus* Hatcher, 1903, as published in the binomen *Haplocanthus priscus* (specific name of the type species of *Haplocanthosaurus* Hatcher, 1903), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Haplocanthus* Hatcher, 1903, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 2684

An application for the conservation of *Haplocanthosaurus* Hatcher, 1903 was received from Drs Spencer G. Lucas & Adrian P. Hunt (*New Mexico Museum of Natural History, Albuquerque, U.S.A.*) on 8 November 1988 and published in BZN **46**: 262–263 (December 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 262. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Kabata and Lehtinen.

No vote was received from Halvorsen.

Kabata preferred not to set aside the Principle of Priority and thought that little inconvenience would result if the older name were used.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Haplocanthosaurus Hatcher, 1903 (June), *Proceedings of the Biological Society of Washington*, **16**: 100.

Haplocanthus Hatcher, 1903 (February), *Proceedings of the Biological Society of Washington*, **16**: 1.

priscus, *Haplocanthus*, Hatcher, 1903, *Proceedings of the Biological Society of Washington*, **16**: 1.

OPINION 1634

Atheris Cope, 1862 (Reptilia, Serpentes): conserved

Ruling

(1) Under the plenary powers the generic name *Chloroechis* Bonaparte, 1849, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Atheris* Cope, 1862 (gender: feminine), type species by subsequent designation by Loveridge (1957) *Vipera chloroechis* Schlegel, 1855 (a junior subjective synonym of *Vipera chlorechis* Pel, [1851]), is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *chlorechis* Pel, [1851], as published in the binomen *Vipera chlorechis* (senior subjective synonym of the specific name of *Vipera chloroechis* Schlegel, 1855, the type species of *Atheris* Cope, 1862), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Chloroechis* Bonaparte, 1849, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 2691

An application for the conservation of *Atheris* Cope, 1862 was received from Dr Donald G. Broadley (*Natural History Museum, Bulawayo, Zimbabwe*) on 14 November 1988 and published in BZN **46**: 264–266 (December 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 265. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Kabata.

No vote was received from Halvorsen. Thompson pointed out that the erroneous statements by Loveridge (1957; cf. BZN **46**: 265, para. 6) resulted in *Atheris* and *Chloroechis* being objective rather than subjective synonyms.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Atheris Cope, 1862, *Proceedings of the Academy of Natural Sciences of Philadelphia*, **14**: 337.
chlorechis, *Vipera*, Pel, [1851], *Nederlandsch Tijdschrift voor Jagtkunde*, **1**: 172.
Chloroechis Bonaparte, 1849, *Proceedings of the Zoological Society of London*, p. 145.

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INSTRUCTIONS TO AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Recent parts of the *Bulletin* should be consulted as examples.

Title. This should be written in lower case letters and include the names to be conserved. A specific name should be cited in the original binomen, with the current name in parentheses.

Author's name. Full postal address should be given.

Abstract. This will be prepared by the Commission's Secretariat.

Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals. Text references should give dates and page numbers in parentheses, e.g. 'Daudin (1800, p. 39) described . . . '.

References. These should be given for all authors cited. The title of periodicals should be in full and be underlined; numbers of volumes, parts, etc. should be in arabic figures, separated by a colon from page numbers. Book titles should be underlined and followed by the number of pages, the publisher and the place of publication.

Submission of application. Two copies should be sent to: The Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time that it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in ASCII text on IBM PC format 5.25 inch 360KB (preferable) or 1.2MB, or 3.5 inch 1.4MB floppy disk. Disks will be returned after copying. It would also be helpful if applications were accompanied by photocopies of relevant pages of the main references.

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Notices

(a) *Invitation to comment.* The Commission is authorised to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after their publication, but this period is normally extended to enable comments to be submitted. Any zoologist who wishes to comment on any of the applications is invited to send his contribution to the Executive Secretary of the Commission as quickly as possible.

(b) *Invitation to contribute general articles.* At present the *Bulletin* comprises mainly applications concerning names of particular animals or groups of animals, resulting comments and the Commission's eventual rulings (Opinions). Proposed amendments to the Code are also published for discussion.

Articles or notes of a more general nature are actively welcomed provided that they raise nomenclatural issues, although they may well deal with taxonomic matters for illustrative purposes. It should be the aim of such contributions to interest an audience wider than some small group of specialists.

(c) *Receipt of new applications.* The following new applications have been received since going to press for volume 48, part 1 (published on 26 March 1991). Under Article 80 of the Code, existing usage is to be maintained until the ruling of the Commission is published.

(1) *Zanclea* Gegenbaur, 1857 (Cnidaria, Hydrozoa): proposed conservation. (Case 2806). D.R. Calder.

(2) *Dinodontosaurus* Romer, 1943 (Reptilia, Synapsida): proposed conservation. (Case 2807). S.G. Lucas.

(3) *Cliola topeka* Gilbert, 1884 (currently *Notropis topeka*; Osteichthyes, Cypriniformes): proposed conservation of the specific name. (Case 2808). F.B. Cross & J.T. Collins.

(4) *Fursenkoina* Loeblich & Tappan, 1961 (Foraminiferida): proposed conservation. (Case 2809). S.A. Revets.

(5) *Rhabdomeson* Young & Young, 1874 (Bryozoa): proposed designation of *Rhabdomeson progracile* Wyse Jackson & Bancroft, 1991 as the type species. (Case 2810). P.N. Wyse Jackson & A.J. Bancroft.

(6) *Catocala connubialis* Guenée, 1852 (Insecta, Lepidoptera): proposed conservation of the specific name. (Case 2811). L.F. Gall.

(7) *Acamptopoeum* Cockerell, 1905 (Insecta, Hymenoptera): proposed designation of *Camptopoeum submetallicum* Spinola, 1851 as the type species. (Case 2812). L. Ruz.

(d) *Rulings of the Commission.* Each Opinion, Declaration or Direction published in the *Bulletin* constitutes an official ruling of the International Commission on Zoological Nomenclature, by virtue of the votes recorded, and comes into force on the day of publication of the *Bulletin*.

The International Code of Zoological Nomenclature

The Third Edition (published 1985) supersedes all earlier versions and incorporates many changes.

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Official Lists and Indexes of Names and Works in Zoology — Second Supplement to 1990

The Official Lists and Indexes of Names and Works in Zoology was published in 1987. This book gives details of all the names and works on which the Commission has ruled since it was set up in 1895 up to 1985. There are about 9,900 entries.

In the five years 1986–1990, 946 names and five works have been added to the Official Lists and Official Indexes. A supplement has been prepared giving these additional entries, together with some amendments and updatings to entries in the 1987 volume. This supplement was circulated to all subscribers to the *Bulletin of Zoological Nomenclature* with Vol. 48, Part 1 of the *Bulletin*. Copies can be obtained without charge from either of the following addresses from which the *Official Lists and Indexes* can also be ordered at the price shown (postage included). Payment should accompany orders.

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Bulletin of Zoological Nomenclature — Crustacea and Mollusca Offprints

As an experiment to assess the demand, the International Trust for Zoological Nomenclature is introducting a subscription for individual zoologists wishing to receive offprints of all cases in particular disciplines. For an annual payment of £15 or $25 subscribers will receive copies of all Applications, Comments and Opinions relating to either the Crustacea or Mollusca as soon as they are published in the *Bulletin of Zoological Nomenclature*. Offprints are available back to 1980.

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How conservative should nomenclature be? Comments on the principle of priority

Peter K.L. Ng
Department of Zoology, National University of Singapore, Kent Ridge, Singapore 0511, Republic of Singapore

Abstract. Recent attempts to circumvent the principle of priority and conserve names on the basis of usage pose innumerable problems. The rationale and objectives behind almost all such attempts and alternative proposals do not really stabilise nomenclature *per se*, but make it even more subjective and are potentially even more contentious than the rules they are meant to replace or correct. Subjective judgemental approaches to usage, obscurity of a publication, quality of published work and professional competence are dangerous and counterproductive. The principle of priority as it stands, applied judiciously with Article 79 of the Code, remains the best solution to the problems associated with pre-Commission nomenclature.

There has been a series of applications in recent years to set aside the principle of priority in favour of names purportedly better known and widely used. A number of interesting ideas and suggestions have sprung up, including establishing a category of 'Protected Works' (Cornelius, 1987). Several important points in this debate, however, have been played down or ignored. One of these is whether the nomenclatural problems associated with a species are on a par with problems concerning genera and families. Other contentions include whether the principle of priority itself is at fault, and what constitutes a 'legal' publication and name.

Part of the debate involves the conservation of well known generic names. Article 79 of the *International Code of Zoological Nomenclature* allows the Commission to set aside the principle of priority if an applicant to the Commission can show that the junior name is better known and more widely used and that its conservation would promote 'stability'. It is always a difficult decision because the degree of usage is often very subjective. Yet several aspects seem to have been ignored. A genus is a far more subjective taxonomic grouping than a species. In a continuing and improving taxonomy, new subgenera or genera are often established to accommodate older species once classified in broader genera. An example would be the commercially important Asiatic softshell turtle *Trionyx sinensis*, on which there is a great deal of scientific literature. Recent revisions, however, redefine *Trionyx* by restricting it to an African species, and the species known as *sinensis* is referred to *Pelodiscus*. Similarly, the well known fish *Tilapia mossambica* has been generically transferred twice, and is now placed in *Oreochromis*. If the generic placement of a species can change (and indeed it must change when the bulk of the evidence requires it) then the whole exercise of quibbling over whether a junior generic name is better known or widely used, and whether the senior synonym should be suppressed, is quite pointless. Even if a 'well known' junior synonym is conserved, there is nothing to prevent some of its constituent species from being transferred to other genera anyway. It is fallacious to assume that a 'well known' genus will always include the 'well known' species. Many well known genera have very obscure and poorly known type species. Biologists must accept the reality that in the interest of a better understanding supraspecific categories may have to change.

In any preliminary study, the key words used in a search for the relevant literature always include the known synonyms. It is mandatory for scientists to keep up with the often voluminous literature, including the Opinions (rulings) of the Commission. To correct an often erroneous notion — the proceedings of the Commission are the concern of *all* biologists, not just taxonomists or ecologists.

The principle of priority is a very effective way to ensure stability. The danger today lies in the fact that a great many applications of this principle can be challenged. This certainly is the case for fishes, on account of the popularity of aquaria. A professional taxonomist who exercises the principle of priority in his revision has to wait a few (or many) years to see if someone might put in an application against his action. If this occurs, then he awaits the comments of his peers and the decision of the Commission. It will take many years before it is known whether his following of the rules has been worthwhile. Meanwhile, a veritable nightmare of confusion can occur, and the taxonomic sciences face even more criticism for being 'indecisive' and 'irrelevant'. A taxonomist may simply send in an application just to force an outcome to ensure stability. The amount of extra work for the Commission will increase out of hand.

The Code was conceived to help zoologists, without expert assistance, decide what is the correct name for a taxon. The Code also serves to provide guidelines for taxonomists to ensure that new taxa are properly described and identifiable by future workers. In the interests of long term stability, the principles and wording have been structured so as to minimise subjectivity and confusion. But the fact remains that the Code was only formulated some 150 years after Linnaeus's system of classification was adopted, and that in this period a great many problems had been generated. Nomenclatural practice and the Commission have been unjustly vilified for doing zoology a disservice by allowing names of well known animals to change because of 'silly' rules and 'inflexibility'. The complaints, more often than not, have come from people who are either not familiar with the objectives of the Code or do not realise that the Commission has to deal with long term scientific interests and nomenclatural stability — not merely the idiosyncrasies, conveniences and preferences of individual persons or groups.

There is also a world of difference between a taxon and a name. A nominal genus, i.e. a taxonomic genus and its name, is objectively defined by a single type species. In turn, the type species and its name are objectively defined by (in principle) a single type specimen. The Code deals only with how the name was originally defined, nothing more. How broad a genus is, what species it includes, the infrageneric variability, popularity of use, phylogenetic origins, etc. are matters outside the jurisdiction of the Commission. They are subjective aspects. The Commission, however, is required to consider these matters when deciding on cases. Decisions by the Commission are designed and intended to be as objective as possible. The situation is not perfect, but is the best as yet available. Thus far, there are no viable or workable alternatives to many of the guidelines or rules in the Code.

I am not in agreement with any notion of designating 'Protected Works'. One man's good taxonomy may well be regarded as bad by another. A taxonomist may produce a beautiful tome with numerous easily used colour illustrations and excellent keys, but he may not have bothered to undertake a comprehensive revision. He may simply have compiled others' works and elaborated on them. A more serious problem arises when only part of the work is regarded as 'good'. To 'protect' 70 or 80%, say, of a work is hardly satisfactory, this exercise being even more subjective. And what if a name in a protected work is shown to be a junior homonym? Should this name be conserved even if its senior homonym is equally well known? And how well known and popular should a name be before it is regarded as 'well known'? By voting perhaps? And who should be allowed to vote? Everyone? And what if two protected works happen to contradict one another? Frost's (1990) comment on committees and appraisal times being set up by the Commission to vet 'Protected Works' is one possible means of salvaging the concept, but I am not convinced that it will reduce the amount of work which has to be done. On the contrary, I anticipate even more work for the committees and the Commission. If bad taxonomy ever becomes sacrosanct, we will all be the losers. The rules as they stand are the most neutral, most impartial and fairest aid to scientific studies. While one of taxonomy's main roles is to service the other biological sciences, it must not be forgotten that it is also a science in itself. As such, it must follow the same rules of allowing objective criticism and dissent.

The problems with species, the 'working units' of taxonomy, are more complicated than with genera. With species which have voluminous literature, following the principle of priority can undoubtedly pose problems. Unlike supraspecific taxa, the species is a generally more stable and objective unit, and a ruling by the Commission has a potentially more permanent effect. The problem lies essentially with subjective synonyms, and we are still grappling with the problems posed by 18th and 19th century taxonomy. Misidentifications and incorrect or non-existent types or type designations are key problems. Even in the absence of these, however, the limits of a species are also quite subjective, and a 'well known species' may well be shown to consist of two or more taxa once the correct characters are elucidated. Suppressing the principle of priority is not necessarily a foolproof solution. A junior synonym, which by a Commission ruling is conserved in place of a senior synonym, may be shown to refer to several species or subspecies, and the rejected senior synonym may well have to be 'exhumed'.

The suppression of senior names is acutely dangerous. In Opinion 846 (1968) the name *Mullus auriflamma* Forsskål, 1775 was suppressed by the Commission to conserve what was believed to be a junior synonym, *M. barberinus* Lacépède, 1802. Later it was shown that they were in fact two separate species, but as its name had been suppressed a new one had to be established for what had previously been called *M. auriflamma* — a terribly confusing and undesirable situation. Today the Commission often prefers to rule that a junior name merely has precedence over a senior synonym, rather than to suppress the senior name.

It has been argued that only in taxonomy is the work of an incompetent allowed to prevail over a good piece of work on the simple ground of priority (see Gould, 1990). The dissent here is legitimate, but an oversimplification. In many cases considered, the senior synonyms have been published in obscure publications, the descriptions often poorly composed and the illustrations, if any, too schematic to be useful. But while some 'incompetents' are easily recognised, the status of most is highly debatable. In practice, the question and debate about competence versus usefulness only arises in cases where the publications had been missed. In cases where a poorly-prepared publication is easily available and well known, it is merely accepted with disapproval. The criterion of obscurity is an even more subjective one. From an Asian viewpoint, most European publications are obscure, especially if they are in languages unfamiliar to the respective scientists. The problem is somewhat similar to that faced by European and American taxonomists who have to uncover and contend with 'obscure' papers written in Chinese, Malay, Thai or Japanese. If the Commission should ever be forced to judge the competence or obscurity of a publication, it will almost certainly disintegrate in the inevitable ensuing disagreement.

The current rules of nomenclature pertaining to priority are sufficiently flexible to allow for the names of 'indisputably well known' species to be conserved. I am a firm supporter of Article 79, which allows for this course of action, but I also believe that this provision should be used extremely sparingly. In the case of genera, in view of the more subjective nature of this taxonomic category, there is really no need to call upon Article 79 at all. For species, the Article should be invoked only if (a) there is an overall consensus as to the conspecificity of the specimens and taxa in question, and (b) the name is very widely used by many scientists. An example might be the recent application by Webb (BZN **47**: 122–123) regarding *Trionyx* (or *Pelodiscus*) *sinensis* Wiegmann. This name has 'fought off' one previous attempt to have a senior synonym supersede it, and the Commission should permit it to do so again.

Changing the principle of priority is not a solution to the current problems of nomenclature. The growth in the number of journals and bulletins, and the ease of desktop publishing, promise further problems for the future. The solution is a tightening of control as to what constitutes legitimate publication. All publications establishing new nominal taxa should in the future have a copy sent to an international body (the *Zoological Record* is a logical depository) in order for the names to be regarded as available. A period of grace (e.g. six or 12 months) between the date of publication and receipt by the *Zoological Record* would be allowed. The editors of journals should send papers describing new taxa to the co-odinating body, and the Commission should have a set of guidelines available upon request to all present and prospective editors. Alternatively, the authors themselves could send in their papers. It should be the editors' (or authors') responsibility to comply. To aid future studies, the whereabouts of all type material (especially holotypes) should also be stated clearly. If possible, at least some type material should be kept in an easily accessible institution.

The problems posed by the sometimes uncritical taxonomic practices of the last two centuries will have to be endured. Eventually, almost all 'obscure' publications will be weeded out, and the names will stabilise. For long there was no truly international governing or guiding body, but there is one now. It must be remembered that any attempt to 'clean house', correct large numbers of old errors, change things for the better (as taxonomists are increasingly doing today) incurs the risk of serious initial upsets and confusion. But this is a necessary evil if systematics and biology in general are to be improved.

Acknowledgement
The author is most grateful to Prof L.B. Holthuis for critically reading an early draft and his many invaluable suggestions.

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Case 2729

Fusus Helbling, 1779 (Mollusca, Gastropoda): proposed confirmation of unavailability

Richard E. Petit
P.O. Box 30, North Myrtle Beach, South Carolina 29582, U.S.A.

Druid Wilson
859 East Osceola Avenue, Lake Wales, Florida 33853, U.S.A.

Abstract. The purpose of this application is the rejection of the name *Fusus* Helbling, 1779, by a ruling that it is unavailable as it was not treated as a valid genus-group name when first published. A consequence of this rejection would be the conservation of *Fusus* Bruguière, 1789, a name which was long used for species currently placed in *Fusinus* Rafinesque, 1815.

1. In 1779 Helbling published a paper in which he used the term 'Fusus' in parentheses. This term, which we consider to be a cheironym (i.e. published as a term intermediate between the generic and specific names and not possessing the status of a subgeneric name), and therefore unavailable, was inserted between the genus name (*Murex*) and four different species names in a manner similar to that in which modern subgenera are cited (e.g., on p. 116, 'Murex (*Fusus*) granosus'). However, there is no indication that Helbling had any concept of subgenera and it appears that his use of 'Fusus' was to call to attention the fact that his species were of the same general morphology as those species called 'Fusus' by pre-Linnaean authors. The word 'Fusus' is in a different type-style from the generic and specific names used by Helbling and we consider this to be further evidence that he did not consider 'Fusus' to be a part of the names being introduced. If Helbling did not consider 'Fusus' to be a valid genus-group name, then under Article 11d of the Code it is unavailable. We have been unable to establish a 'starting date' for the use of subgenera in zoological nomenclature, but we believe it to be considerably later than 1779.

2. The problem of 18th Century intermediate names was touched on by Hemming (1954, p. 183); names published by Linnaeus and J.C. Fabricius in this way were ruled to be unavailable in Opinions 279 and 382.

3. E. von Martens (1869, pp. 234–236) published a short paper on Helbling's previously neglected species-group taxa, citing the taxa in a manner suggesting that 'Fusus' was indeed a subgenus of *Murex* (sensu Helbling). It is noteworthy that von Martens made no mention of 'Fusus' as a genus-group taxon although he did point out that *Stomatia*, which was not placed in parentheses, dates from Helbling (1779, p. 124). The omission of any such mention by von Martens, especially as this portion of his paper is entitled *Helbling's Namen*, certainly indicates that he did not consider 'Fusus' to be more than a parenthetical expression.

4. 'Fusus', as a genus-group taxon attributable to Helbling, was not used in the scientific literature until Dall (1906, p. 290) stated that Helbling's use of 'Fusus' was binomial [sic] and that this usage preoccupied *Fusus* Bruguière, 1789, then current in systematic malacology and paleontology. Dall's statement that Helbling's usage was a valid introduction of 'Fusus' into the scientific literature has remained largely unchallenged although a study of Helbling's work shows that his conclusion is invalid. Dall (1906, p. 292) stated: '... the influence of Lamarck prevailed to such an extent as to cause a general acquiescence in his nomenclature...', an indictment equally applicable to Dall. Dall's 1906 paper was critically reviewed by Dollfus (1908) who called Dall's actions 'déplorable subterfuge'.

5. Dall (1906, p. 293) attempted to fix the type of *Fusus* Helbling by the process of elimination, but did not actually state that he was making a type designation. Iredale (1915, p. 466), in stating that Dall had selected *Murex intertextus* Helbling, 1779 (p. 120) as type, thereby established (Article 69a(iv)) a type for the putative nominal genus *Fusus* Helbling, 1779. *Murex intertextus* was stated in its description to be from Sicily, and Dall (1906), Iredale (1915), Malatesta (1960) and others have stated that it is a senior subjective synonym of *Tritonium reticulatum* Blainville, 1829, a well-known European species usually placed in *Colubraria* Schumacher, 1817.

6. Malatesta (1960, p. 146), although using *Fusus* Helbling as a valid genus, and showing in the citation of the type species that '*Triton* [sic] *reticulatum* Blainville = *Fusus intertextus* Helbling', cites the species as *Fusus reticulatus* (Blainville, 1826 [sic]). He accepted Helbling's 'genus' but rejected, for reasons unstated, Helbling's nominal species.

7. Dodge (1947, p. 488), in listing *Fusus* Bruguière, 1789, states: 'Antedated by *Fusus* Helbling, 1779 (= *Cumia* Bivona, 1838) which, however, was not validly proposed'. We agree with Dodge's conclusion.

8. The putative nominal genus *Fusus* Helbling, although dating from 1779 if available, has been used as valid only in the compilations of Dall (1906), Iredale (1915, pp. 465–466), Wenz (1941, p. 1194), Malatesta (1960, p. 146) and Beu & Maxwell (1987, p. 61).

9. *Fusus* Helbling, 1779 was declared a nomen oblitum by Glibert (1963, p. 74), with explicit reference to Article 23b of the 1961 Code. Article 79c(iii) of the current edition states that Glibert's rejection must stand unless overruled by action of the Commission. However, the relegation of *Fusus* Helbling to nomen oblitum status affects only its status under the Principle of Priority and does not affect its status as a senior homonym under the Principle of Homonymy. It is our opinion that suppression of *Fusus* Helbling is not necessary because it has no standing in nomenclature, but that it should be put on the Official Index of Rejected and Invalid Generic Names.

10. Dall (1906), Iredale (1915), Beu & Maxwell (1987) and others have pointed out that if *Fusus* Helbling is allowed to stand it will replace, as a senior subjective synonym, *Cumia* Bivona-Bernardi, 1838 (and possibly *Colubraria* Schumacher, 1817). It is not clear why authors have considered *Fusus* Helbling to be available insofar as it would preoccupy *Fusus* Bruguière, 1789, but unavailable insofar as it would replace *Cumia* and/or *Colubraria*, an attitude later taken by Dall. In describing *Colubraria pervaricosa*, Dall & Ochsner (1928, p. 108) state: 'This shell belongs to the group of

which the type (by elimination) should carry the name of *Fusus* Helbling, not Lamarck. The adoption of this name, however, would involve such confusion tnat we hesitate to use it'. It is obvious that *Fusus* Helbling must be either available or not, and cannot be accepted for one purpose and rejected for another.

11. Cernohorsky (1971, p. 153) mentions that recognition of *Fusus* Helbling 'presents taxonomic problems', but he offers no solutions, stating only that *Fusus* Helbling, 1779 would have priority over *Colubraria* Schumacher, 1817.

12. *Fusus* Bruguière, 1789 (p. xv) was introduced as a genus without included species and no nominal species were assigned to it until Lamarck did so in 1799 (p. 73), making *Murex colus* Linnaeus, 1758 (p. 753) the type by subsequent monotypy. The first post-Linnaean usage of *Murex colus* Linnaeus was by Born (1778, pp. 309–310) who also listed the French vernacular name for the species, 'Le Fuseau'.

13. Röding (1798, p. 118) also introduced the pre-Linnaean term 'Fusus' for a genus-group taxon, but nowhere in his work is there any indication that he was aware of Bruguière's work nor is there any citation of Bruguière. It is obvious that Röding's introduction of *Fusus* was based on its pre-Linnaean usage and had no direct relation to Bruguière's previous introduction of the same name. *Fusus* [Röding], 1798 is a junior homonym of *Fusus* Bruguière, 1789.

14. *Fusinus* Rafinesque, 1815 (p. 145), an unjustified emendation of *Fusus* 'Lamarck' (Bruguière, 1789; Lamarck, 1799), has been used by most authors since the publication of Dall's 1906 paper, although some Old World systematists continue to use *Fusus* Bruguière. Dodge, noted for his publications on the histories of various nominal taxa, writing about *Fusus colus* (Linnaeus) stated (1957, p. 153) '... other generic names have been proposed to contain it ... although only *Fusinus* Rafinesque enjoyed any appreciable currency'.

15. *Fusus* Bruguière, 1789 was treated as a valid name by Thiele (1929, p. 329), who did not mention Helbling. It was also treated as a valid name by Korobkov (1955, p. 372) who cited it as 'non *Fusus* Helbling, 1779' and as a 'nomen conservandum' (although there has not been a Commission ruling declaring it to be a conserved name). Glibert (1963, p. 141) and Strausz (1966, pp. 340–341) both accepted *Fusus* Bruguière as valid and referred to Korobkov's use of the term 'nomen conservandum'.

16. Placement of *Fusus* Bruguière, 1789 on the Official List of Generic Names will eventually do more to stabilize nomenclature than would validation of *Fusus* Helbling, 1779. Most taxa congeneric with *Fusus colus* (Linnaeus) were originally described in *Fusus* Bruguière, 1789, this nominal taxon having been in use by many authors until recent years. Sherborn (1902–33) and Ruhoff (1980) list over 1100 species-group names proposed in combination with *Fusus*, none of which were proposed in 'Fusus' sensu Helbling.

17. To stabilize the nomenclature and to resolve the problems discussed above, we suggest that *Fusus* Helbling, 1779 be declared unavailable, which we believe it to be. This action would allow *Cumia* Bivona-Bernardi, 1838 to remain in use, and would also conserve *Fusus* Bruguière, 1789, which was in general usage for over a century and which is still used by some systematists.

18. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to rule that the name *Fusus* Helbling, 1779 is unavailable because it was not treated as a valid genus-group name when published;

(2) to place on the Official List of Generic Names in Zoology the name *Fusus* Bruguière, 1789 (gender: masculine), type species by subsequent monotypy by Lamarck (1799) *Murex colus* Linnaeus, 1758;

(3) to place on the Official List of Specific Names in Zoology the name *colus* Linnaeus, 1758, as published in the binomen *Murex colus* (specific name of the type species of *Fusus* Bruguière, 1789);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Fusinus* Rafinesque, 1815 (a junior objective synonym of *Fusus* Bruguière, 1789).

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Case 2753

Cycloceras M'Coy, 1844 (Mollusca, Nautiloidea): proposed designation of *C. laevigatum* M'Coy, 1844 as the type species, and proposed designation of a neotype for *C. laevigatum*

Kathleen Histon

Department of Geology, Trinity College, Dublin 2, Ireland

Abstract. The purpose of this application is to stabilise the generic name *Cycloceras* M'Coy, 1844 for an important group of Carboniferous nautiloids by designating *C. laevigatum* M'Coy, 1844 as its type species and designating a neotype for that species.

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1. M'Coy (1844, p. 6), in describing cephalopods from the Carboniferous Limestone of Ireland, established the generic name *Cycloceras* for 'those conical species marked with prominent concentric rings, and having the surface frequently sculptured with transverse scaly laminae, and often decussated; siphuncle dorsal'. A line drawing (fig. 6) accompanying this description showed an annulated conch with both longitudinal and transverse striations; this figure was not identified at specific level. M'Coy (p. 10) described three nominal species under the name *Cycloceras* — *Orthocera annularis* Fleming, 1815, *Cycloceras laevigatum* sp. nov. and *Orthoceras lineolatum* Phillips, 1841; none was designated as type species of *Cycloceras*. Only one of these species, *C. laevigatum*, was figured (pl. 1, fig. 3); this specimen is in the collections of the National Museum of Ireland. None of the three species included in *Cycloceras* shows the longitudinal striae which were a prominent feature of the line drawing illustrating the genus *Cycloceras* (fig. 6).

2. This contradiction between the line drawing of the genus *Cycloceras* and the features of the included species has been tackled in different ways by different workers.

3. Foord (1897, pp. 14–16, pl. 5, fig. 1a–e) described several specimens which he called *laevigatum* M'Coy. He assigned that nominal species to *Orthoceras* Bruguière, 1789 although he was well aware of the genus *Cycloceras*.

4. In 1884 Hyatt (p. 275) redefined the genus *Cycloceras*, using only the species described by M'Coy and not the generic diagnosis, as transversely striated Palaeozoic longicones which at some stage of their growth have annular costae. However, in the Zittel-Eastman *Text-book of Palaeontology* (1900, p. 518), Hyatt based his definition of *Cycloceras* on M'Coy's generic description, stating that it included annulated orthoceracones and cyrtoceracones with discontinuous longitudinal ridges.

5. In 1915 Bassler (p. 325) listed several species of *Cycloceras* and designated *Orthocera annularis* Fleming, 1815 as the type species, presumably because it was the first species included in *Cycloceras* by M'Coy (1844).

6. In 1924 Foerste (p. 222), believing that M'Coy had included two distinct types of structure in his generic description, proposed *Orthoceras rugosum* Fleming, 1815 as the type species of *Cycloceras* on the grounds that it was the only species known in M'Coy's

time that resembled his generic line drawing in possessing both longitudinal and transverse striations. However, this type species designation is not valid since *O. rugosum* was not one of M'Coy's originally included nominal species. In the same paper Foerste (p. 224) proposed the genus *Perigrammoceras* for those species with only transverse striations. He designated as type species *Orthoceras laevigatum* 'as figured by Foord, in Carb. Ceph. Ireland, 1897, figs. 1d, 1e'. This specimen, which is the type specimen of *Perigrammoceras laevigatum* (as understood by Foerste), is preserved in the collections of the Geological Survey of Ireland (registered GSI: F03402).

7. In 1926 Croneis (p. 188) proposed *Cycloceras laevigatum* M'Coy as the type species of *Cycloceras* for 'annulated orthoceracones and cyrtoceracones with or without transverse striae or ribs'. He wrote: '... the genotype [type species] of *Perigrammoceras* is a species which probably should be designated as the genotype of the original *Cycloceras* of M'Coy'. Croneis (p. 192, footnote) considered *Perigrammoceras laevigatum* (M'Coy), as based on the specimen figured by Foord (1897), to be synonymous with M'Coy's original species *laevigatum*, thereby treating *Perigrammoceras* as a junior objective synonym of *Cycloceras*. Miller, Dunbar & Condra (1933, p. 47) and subsequent workers supported Croneis in considering *Perigrammoceras* to be a synonym of *Cycloceras*.

8. In the *Treatise on Invertebrate Paleontology*, Sweet (1964, p. K259) referred to *Perigrammoceras* as a possible synonym of *Cycloceras*, writing: 'Validity or invalidity of the suggested synonymy will depend on establishment of identity or lack of identity of internal structures in type-species of the two genera'. However, the specimen figured by Sweet (fig. 186, 2), which was refigured from Foord (pl. 5, fig. 1a), was not the specimen used by Foerste as the 'type' when establishing *Perigrammoceras* (see para. 6 above), but another Foord specimen (GSI: F03400) from the same locality. Sweet did not accept Croneis's selection of *C. laevigatum* as the type species of *Cycloceras* since it was based on an internal mould of a body chamber of an indeterminate orthoceracone. Sweet retained Bassler's designation of the nominal species *Orthocera annularis* Fleming, 1815 as the type species of *Cycloceras*.

9. The type specimen of *Cycloceras laevigatum* M'Coy (1844, pl. 1, fig. 3) (NMING: F7212) is an internal mould without internal morphological features. The type specimen of *Perigrammoceras laevigatum* (M'Coy) sensu Foerste (GSI: F03402) has been sectioned and is totally recrystallised internally with no features preserved. The type specimen of *Orthocera annularis* Fleming (R.S.M.1870.14.396) is a badly preserved sandstone cast; its internal morphology will never be known. *Orthoceras annulatum* Phillips, 1836, which M'Coy thought to be synonymous with *O. lineolatum* Phillips, 1841, has been assigned 'possibly' to *Reticycloceras* Gordon, 1960 by D. Phillips (1985, p. 238).

10. The specimen figured by Foord (1897, pl. 5, fig. 1a, b) and by Sweet (see para. 8) as *Orthoceras laevigatum* (GSI: F03400) has been sectioned and has some internal morphology preserved. This specimen, in the collections of the Geological Survey of Ireland, is being redescribed and figured by me (in preparation). This is the first cited specimen suitable in its preservation to be designated as the neotype of *Cycloceras laevigatum* M'Coy, and I hereby propose its designation as such. The nomenclature of *Cycloceras* would be stabilised by confirmation of Croneis's (1926) designation of *C. laevigatum* M'Coy as type species. *Perigrammoceras* Foerste, 1924 has not been used for many years and can remain as a junior synonym of *Cycloceras*.

11. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
   (a) to set aside all type species fixations for the nominal genus *Cycloceras* M'Coy, 1844 prior to that by Croneis (1926) of *Cycloceras laevigatum* M'Coy, 1844;
   (b) to set aside all previous fixations of type specimen for *Cycloceras laevigatum* M'Coy, 1844, and to designate as neotype the specimen GSI: F03400, figured by Foord (1897, pl. 5, fig. 1a);
(2) to place on the Official List of Generic Names in Zoology the name *Cycloceras* M'Coy, 1844 (gender: neuter), type species by subsequent designation by Croneis (1926) *Cycloceras laevigatum* M'Coy, 1844, as ruled in (1)(a) above;
(3) to place on the Official List of Specific Names in Zoology the name *laevigatum* M'Coy, 1844, as published in the binomen *Cycloceras laevigatum* and as defined by the neotype designated in (1)(b) above (specific name of the type species of *Cycloceras* M'Coy, 1844).

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Case 2765

Phyllodoce Lamarck, 1818 and *Polyodontes* de Blainville, 1828 (Annelida, Polychaeta): proposed conservation

Fredrik Pleijel
Swedish Museum of Natural History, Box 50007, S-104 05 Stockholm, Sweden

Abstract. The purpose of this application is to conserve *Phyllodoce* Lamarck, 1818 as the name for a genus of marine polychaetes. It is threatened by the unused senior homonym *Phyllodoce* Ranzani, 1817, which is also a senior objective synonym of *Polyodontes* de Blainville, 1828.

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1. Ranzani (1817a, p. 109) established a genus *Phyllodoce* for the single species *Phyllodoce maxillosa*, which belongs to the ACOETIDAE Kinberg, 1858 (previously known as POLYODONTIDAE Augener, 1918). A description of this genus and species was published also by Ranzani (1817b, p. 1456), where he mentioned the previous paper.

2. For a different polychaete, Lamarck (1818, p. 316) established the genus *Phyllodoce* with the single species *Phyllodoce laminosa*. Lamarck referred the authorship to 'Sav. Mss.', presumably indicating Savigny's manuscript of *Description de l'Egypte*, and subsequent workers have generally referred the authorship to Savigny, although no consensus on the year of publication was reached. However, the relevant pages (pp. 13, 28, 42, 43, 45) were not published until 1822 (see Opinion 1461, BZN **44**: 220) so Lamarck (1818) is the author. Although Lamarck's description is very brief, there are no doubts as to the identity of his species.

3. *Phyllodoce* Lamarck, 1818 presently encompasses between 100 and 200 nominal species (depending on how the genus is demarcated; see, for example, Pleijel, 1991, in press; Ushakov, 1972, p. 124 and Fauchald, 1977, p. 50). Örsted (1843, p. 25) erected the family-group name PHYLLODOCIDAE (as 'Div. Phyllodoceae') based on *Phyllodoce* Lamarck, 1818 (but referred by Örsted to Savigny). Both the generic and family names are threatened by the senior homonym *Phyllodoce* Ranzani, 1817.

4. De Blainville (1828, p. 461) cited *Polyodontes*, a name derived from a manuscript by Renieri, in the synonymy of *Phyllodoce maxillosa* Ranzani. This has been consistently used since and is available under Article 11e of the Code, with de Blainville as author (see, for example, Fauvel, 1923, p. 96 and Pettibone, 1989, p. 98). A list of nine further references has been given to the Commission Secretariat.

5. Since de Blainville (1828) the generic name *Phyllodoce* Ranzani, 1817 does not appear to have been used as a valid name. This is probably due to uncertainties concerning the date of publication of Ranzani's and Savigny's works, and Ranzani's name has generally been regarded as a junior rather than a senior homonym. Ranzani's description is fairly detailed and there is a risk that his name may be revived. Since this senior homonym is unused strict application of priority would cause undue confusion and instability of nomenclature. It is desirable to retain the commonly used

names *Phyllodoce* Lamarck, 1818, PHYLLODOCIDAE Örsted, 1843 and *Polyodontes* de Blainville, 1828, and to suppress *Phyllodoce* Ranzani, 1817.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Phyllodoce* Ranzani, 1817, and all uses of the name *Phyllodoce* before the publication of *Phyllodoce* Lamarck, 1818, for the purposes of both the Principle of Priority and the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Phyllodoce* Lamarck, 1818 (gender: feminine), type species by monotypy *Phyllodoce laminosa* Lamarck, 1818;
  (b) *Polyodontes* de Blainville, 1828 (gender: masculine), type species by monotypy *Phyllodoce maxillosa* Ranzani, 1817;

(3) to place on the Official List of Specific Names in Zoology the following names:
  (a) *laminosa* Lamarck, 1818, as published in the binomen *Phyllodoce laminosa* (specific name of the type species of *Phyllodoce* Lamarck, 1818);
  (b) *maxillosa* Ranzani, 1817, as published in the binomen *Phyllodoce maxillosa* (specific name of the type species of *Polyodontes* de Blainville, 1828);

(4) to place on the Official List of Family-Group Names in Zoology the name PHYLLODOCIDAE Örsted, 1843 (type genus *Phyllodoce* Lamarck, 1818);

(5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Phyllodoce* Ranzani, 1817, as suppressed in (1) above.

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Case 2791

Chelifer museorum Leach, 1817 (currently *Cheiridium museorum*; Arachnida, Pseudoscorpionida): proposed conservation of the specific name

Mark S. Harvey

Western Australian Museum, Francis Street, Perth, Western Australia 6000, Australia

Abstract. The purpose of this application is the conservation of the specific name of *Chelifer museorum* Leach, 1817 which is consistently used for a common, often synanthropic, pseudoscorpion recorded from Europe, Africa, India and North America. *C. museorum* is the type species of *Cheiridium* Menge, 1855 but the name is threatened by the unused senior synonym *Chelifer nepoides* Hermann, 1804.

1. *Chelifer nepoides* Hermann (1804, p. 116) was described from specimens which are no longer available, collected near Strasbourg, France.

2. *Chelifer museorum* Leach (1817, p. 50, fig. 4) was described from specimens collected in Great Britain. One syntype specimen is lodged in the collection of the Natural History Museum, London. *Chelifer museorum* was designated the type species of *Cheiridium* Menge (1855, p. 36) by the subsequent designation of Simon (1879, p. 43).

3. *Chelifer nepoides* Hermann, 1804 was first regarded as a synonym of *Chelifer museorum* Leach, 1817 by Tömösváry (1882, p. 210), who adopted *museorum* as the valid name. This has been followed by all subsequent authors and *nepoides* Hermann, 1804 has not been mentioned in the primary literature since 1882.

4. *Cheiridium museorum* (Leach, 1817) has been cited in the literature on numerous occasions (see, for example, Weygoldt, 1969, pp. 23, 26, 41, 42, 74, 108, 110; Jones, 1980, map 13 and Legg & Jones, 1988, pp. 91–92). A representative list of seven addditional important works, dating from 1924 to 1974, in which the name *museorum* Leach, 1817 has been used is held by the Commission Secretariat.

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to suppress the specific name *nepoides* Hermann, 1804, as published in the binomen *Chelifer nepoides*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Cheiridium* Menge, 1855 (gender: neuter), type species by subsequent designation by Simon (1879) *Chelifer museorum* Leach, 1817;

(3) to place on the Official List of Specific Names in Zoology the name *museorum* Leach, 1817, as published in the binomen *Chelifer museorum* (specific name of the type species of *Cheiridium* Menge, 1855);

(4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *nepoides* Hermann, 1804, as published in the binomen *Chelifer nepoides* and as suppressed in (1) above.

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Case 2759

Goniosoma conspersum Perty, December 1833 (currently *Mitobates conspersus*; Arachnida, Opiliones): proposed conservation of the specific name

Adriano B. Kury
Departamento de Zoologia, Universidade Federal do Rio de Janeiro, CCS bloco A, Ilha da Cidade Universidade, Rio de Janeiro, RJ, 21941, Brazil

Abstract. The purpose of this application is the conservation of the specific name of *Mitobates conspersus* (Perty, 1833), a Brazilian laniatorid harvestman, by the suppression of its unused senior synonym *Mitobates triangulus* Sundevall, April 1833.

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1. In a footnote to his description of the new genus *Mitobates*, Sundevall (1833, p. 34) described briefly (without an illustration) the species *Mitobates triangulus* which is the type species by monotypy. The type specimens were probably deposited in the collection of B.W. Westermann, whom Sundevall had consulted. After Westermann's death in 1868 the collection was donated to the Zoologisk Museum, Copenhagen. Enquiries at Lund, Copenhagen and Stockholm Museums have yielded no positive result.

2. Perty (1833, p. 202) described *Goniosoma conspersum*, of which the type material is now deposited in the Zoological Museum of Berlin (specimens ZMB 943 a–c). The date of publication of Perty's paper is 13 December 1833, and that of Sundevall's is 24 April 1833.

3. Gervais (1844, pp. 108, 113) cited *Goniosoma conspersum* Perty, 1833 and *Mitobates triangulus* Sundevall, 1833 separately. Simon (1879, p. 234) mistakenly considered *M. conspersus* (Perty) to have date priority over *M. triangulus* Sundevall and listed the latter as a junior subjective synonym of the former. All subsequent authors have followed Simon (see, for example, Roewer, 1931; Mello-Leitão, 1932; Soares & Soares, 1949). A list of four representative references is held by the Commission Secretariat. *Mitobates triangulus* has not been cited since Gervais (1844) except as a synonym in check-lists. I have recently published (Kury, 1990) a paper concerning *Mitobates* Sundevall, 1833 with a redescription of the species *Mitobates conspersus* (Perty, 1833).

4. In view of the fact that *M. conspersus* has been widely used, its replacement by the subjective synonym *triangulus* which was published only a few months earlier and has been unused since 1844 is unwarranted.

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the name *triangulus* Sundevall, 1833, as published in the binomen *Mitobates triangulus*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *conspersum* Perty, 1833, as published in the binomen *Goniosoma conspersum*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *triangulus* Sundevall, 1833, as published in the binomen *Mitobates triangulus* and as suppressed in (1) above.

Acknowledgements
I wish to thank Dr. H. Enghoff (Copenhagen) and Dr. T. Kronestedt (Stockholm) for information on their collections.

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Case 2292

Histoire abrégée des insectes qui se trouvent aux environs de Paris (Geoffroy, 1762): proposed conservation of some generic names (Crustacea and Insecta)

I.M. Kerzhner

Zoological Institute, Academy of Sciences, Leningrad 199034, U.S.S.R.

Abstract. Geoffroy's *Histoire abrégée des insectes qui se trouvent aux environs de Paris* (1762) was rejected for nomenclatural purposes and placed on the Official Index in 1954 (Opinion 228). Many of the 59 new generic names proposed by Geoffroy are in current use and 16 names with authorship from Geoffroy (1762) have already been conserved and placed on the Official List. The purpose of this application is to conserve the following 24 additional names from Geoffroy (1762): Crustacea: *Asellus*; Hymenoptera: *Diplolepis*, *Eulophus*, *Urocerus*; Lepidoptera: *Pterophorus*; Coleoptera: *Altica*, *Anthrenus*, *Anthribus*, *Bostrichus*, *Cerocoma*, *Copris*, *Crioceris*, *Cryptocephalus*, *Diaperis*, *Galeruca*, *Gyrinus*, *Hydrophilus*, *Notoxus*, *Omalisus*, *Platycerus*, *Prionus*, *Ptilinus*, *Pyrochroa* and *Stenocorus*.

A. Introduction

A.1 In 1762 Geoffroy published a two volume work entitled *Histoire abrégée des insectes qui se trouvent aux environs de Paris*. In this work Geoffroy proposed 59 new generic names of which four could be regarded as emendations or incorrect spellings of Linnaean names — *Dyticus* for *Dytiscus*, *Mantes* for *Mantis*, *Hepa* for *Nepa* and *Tinaea* for *Tinea*. The present-day placement of the 59 new generic names is 1 pseudoscorpion, 2 Crustacea and the rest Insecta (1 Thysanura, 2 Orthoptera, 1 Plecoptera, 2 Homoptera, 3 Heteroptera, 1 Neuroptera, 6 Diptera, 4 Hymenoptera, 2 Lepidoptera and 34 Coleoptera). In 1954 the International Commission on Zoological Nomenclature rejected Geoffroy's work for nomenclatural purposes on the grounds that it was not consistently binominal (Opinion 228). The Commission invited specialists to submit 'applications for the validation [conservation], under the plenary powers, of any names, the rejection of which would, in their opinion, lead to instability or confusion in the nomenclature of the group concerned'. Up to the end of 1990, 18 of the generic names proposed by Geoffroy had been conserved by the Commission and placed on the Official List of Generic Names in Zoology. Sixteen of these 18 names were attributed to Geoffroy (1762); authorship of *Crioceris* was attributed to Müller (1764) and of *Pterophorus* to Schaeffer (1766).

A.2 Two years after publication of Geoffroy's work, O.F. Müller (1764) published *Fauna Insectorum Fridrichsdalina* containing a table comparing the generic

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In 1978 Dr Kerzhner submitted an application to the Commission in which he considered all Geoffroy's new generic names and proposed the conservation with authorship from Geoffroy (1762) of 29 of them that were then in current usage. Owing to the limited resources of the Commission's Secretariat it has not been feasible until now to complete this very extensive case. Editor.

classifications of Linnaeus (1758) and Geoffroy (1762). Müller listed all Geoffroy's generic names (with the exception of *Tetigonia* and with *Cistela* and *Omalisus* misspelt) with Geoffroy's original diagnoses. A direct consequence of this, coupled with the rejection by the Commission of Geoffroy's 1762 work, is that Geoffroy's generic names can be taken as available from Müller's 1764 work; under Article 50a of the Code authorship is 'Geoffroy in Müller'. It could be argued that Geoffroy's names are listed by Müller in synonymy with Linnaean names and therefore are not available from Müller's work. I asked Professor H.D. Cameron (Professor of Greek and Latin in the Department of Classical Studies at the University of Michigan) for his opinion. His report makes it clear that Müller did not synonymise Geoffroy's names with Linnaeus's. Since the purpose of the present application is to conserve names from Geoffroy (1762), the availability of Geoffroy's names in Müller's work (1764) is of importance only in connection with names placed on the Official Index of Rejected and Invalid Generic Names in Zoology. However, the long-standing confusion on the authorship of Geoffroy's names in Müller (1764) can now be resolved once and for all and I include Professor Cameron's important statement as an Appendix to this application.

A.3 Nearly all Geoffroy's generic names were subsequently used by Schaeffer (1766) and all except *Tetigonia* by Schluga (1767). Both works are consistently binominal (Article 11c(i)) and both contain diagnoses and illustrations of Geoffroy's genera. Müller (1764), Schaeffer (1766) and Schluga (1767) did not include nominal species for Geoffroy's genera. The first consistently binominal works in which nominal species are referred to Geoffroy's genera are Linnaeus, 1767; Forster, 1770; Scopoli, 1772; De Geer, 1774, 1775; Fabricius, 1775; Müller, 1776; Fourcroy, 1785; and Olivier, 1791.

A.4 Several species in Geoffroy's work were provided with a reference to Linnaeus (1758 or occasionally 1746), but the identity with Linnaean species was not always correctly determined. For the other species, binominal names were given in Fourcroy (1785), a work of which Fourcroy was only the publisher as clearly indicated in the preface. All diagnoses in Fourcroy were reprinted from Geoffroy (1762) or added by Geoffroy and subsequently published in the second edition (Geoffroy, 1799). All binominal names were given by Geoffroy. It follows that the correct authorship of new names in Fourcroy (1785) is Geoffroy in Fourcroy (Article 50a). Type species for Geoffroy's genera, where not fixed by subsequent monotypy, were designated by a number of authors including Latreille (1810), Curtis (1824–1839), Schönherr (1823) and Westwood ([1838]–1840).

A.5 The majority of Geoffroy's generic names were widely used as valid names by subsequent authors. However, some of the names were used in a very different sense and this was a source of confusion and instability, especially in 19th century coleopteran names. In the first third of the 20th century the use of almost all the names was more or less stabilised, standard practice being to attribute authorship to Geoffroy for those names used in their original or near-original sense. For a number of names used not in the sense of Geoffroy but following Linnaeus, Fabricius or Kugelann authorship was attributed to those authors. Several names that were the source of greatest confusion have gradually disappeared from use.

A.6 The availability of Geoffroy's (1762) names has been discussed by a number of authors such as Bedel (1882, p. 4), Bergroth (1907, pp. 575–576) and Seidlitz (1908). Neave (1939–1940) supplied nearly all with a second or even a third reference but these references are not consistent. Nearly half are references to Müller, 1764 (or rarely to Geoffroy in Müller, 1764); others include Linnaeus (1767), Schluga (1767), Fabricius (1775), Müller (1776), Laicharting (1781), Fourcroy (1785) and Olivier (1791).

A.7 Many specialists continue to use the authorship of Geoffroy, 1762, or even prefer to cite all the authorship used in the literature (see Arnett, 1963, p. 937). It is obviously desirable to end this chaos and arbitrary attribution to different authors and dates. Accordingly I have examined all Geoffroy's generic names. Those which are in need of further consideration are dealt with in Sections B — K of this paper. Against each name I have proposed appropriate action, in 24 cases that the Commission should use its plenary powers to conserve that name with the authorship of Geoffroy (1762). If my proposals are accepted 40 of Geoffroy's 59 new generic names will have been conserved by use of the Commission's plenary powers. The disposition of the remaining 19 names may be summarized as follows. In eight cases (*Bruchus*, *Byrrhus*, *Crabro*, *Cucujus*, *Melolontha*, *Mylabris*, *Peltis* and *Tritoma*) the same name was used by a subsequent author (in the first two instances Linnaeus (1767), in *Peltis* Kugelann (1792) and in the others Fabricius (1775)) in a taxonomic sense different from Geoffroy's; on the grounds of usage the conservation of these junior homonyms is desirable. *Crabro* Fabricius, 1775 has already been conserved; the conservation of *Bruchus* Linnaeus, 1767 and *Mylabris* Fabricius, 1775 has been proposed by Borowiec (BZN **45**: 194–196) and that of the others is proposed herein. In five cases (*Forbicina*, *Mantes*, *Hepa*, *Dyticus* and *Tinaea*) senior synonyms from Linnaeus, 1758 are in use. The names *Binoculus*, *Acrydium*, *Tetigonia*, *Formicaleo*, *Cistela* and *Rhinomacer* have been replaced in general usage by synonyms. All these names are discussed below. Five generic names established by Linnaeus (1758), namely *Attelabus*, *Buprestis*, *Cantharis*, *Chermes* and *Cicindela*, were intentionally used by Geoffroy (1762) in a sense different from that of Linnaeus. They can be treated either as misidentifications, or as junior homonyms of Linnaean names. In either case they are invalid and do not require action.

A.8 I am aware that it has been the Commission's practice in recent years to consider applications for the conservation of a single name or a very few names from a single taxonomic group, as for the 16 names conserved from Geoffroy (1762) over the last 37 years. However, I believe that it would be in the interests of nomenclatural stability for this application, initially put forward by me 13 years ago, to be considered as a whole. It has been prepared so that each name is subject to separate consideration by the Commission. This means that the Commission's ruling on names that receive clear support from zoologists will not be delayed even if there are other names that generate some opposition. I therefore urge fellow zoologists to submit their views to the Commission on the proposals put forward against each of those generic names that fall within their specialist area.

A.9 The table below lists all the new generic names proposed by Geoffroy. I have given the relevant Opinion number against those names already placed on the Official List or Official Index, even if attributed to an author other than Geoffroy. I have given the page number in this application for those names considered here for the first time and also for names already ruled on by the Commission but on which I comment further. I have grouped the names in alphabetical order in systematic groups following accepted systematic order except that the Coleoptera are placed at the end.

New Generic Names Proposed by Geoffroy (1762)

Arachnida, Pseudoscorpionida

Chelifer Placed on Official List in Opinion 1542 (1989)

Crustacea

Asellus Considered on p. 111 (B.1)

Binoculus Placed on Official Index in Opinion 502 (1958), considered further on p. 111 (B.2)

Insecta, Thysanura

Forbicina Considered on p. 112 (C.1)

Insecta, Orthoptera

Acrydium Considered on p. 112 (D.1)

Mantes Placed on Official Index in Opinion 299 (1954), considered further on p. 112 (D.2)

Insecta, Plecoptera

Perla Placed on Official List in Opinion 645 (1963)

Insecta, Homoptera

Psylla Placed on Official List in Opinion 731 (1965)

Tetigonia Placed on Official Index in Opinion 299 (1954), considered further on p. 114 (E.1)

Insecta, Heteroptera

Corixa Placed on Official List in Opinion 281 (1954)

Hepa Considered on p. 114 (F.1)

Naucoris Placed on Official List in Opinion 681 (1963)

Insecta, Neuroptera

Formicaleo Considered on p. 114 (G.1)

Insecta, Diptera

Bibio Placed on Official List in Opinion 441 (1957)

Nemotelus Placed on Official List in Opinion 441 (1957)

Scatopse Placed on Official List in Opinion 441 (1957)

Stomoxys Placed on Official List in Opinion 441 (1957)

Stratiomys Placed on Official List in Opinion 442 (1957)

Volucella Placed on Official List in Opinion 441 (1957)

Insecta, Hymenoptera

Crabro Placed on Official Index in Opinion 144 (1943) and Direction 4 (1954), considered further on p. 115 (H.1)

Diplolepis Considered on p. 115 (H.2)

Eulophus Considered on p. 116 (H.3)

Urocerus Considered on p. 116 (H.4)

Insecta, Lepidoptera

Pterophorus Placed on Official List in Opinion 703 (1964), considered further on p. 117 (J.1)

Tinaea Placed on Official Index in Opinion 450 (1957), considered further on p. 117 (J.2)

Insecta, Coleoptera

Altica Considered on p. 117 (K.1)

Anaspis Placed on Official List in Opinion 1273 (1984)

Anthrenus Considered on p. 118 (K.2)

Anthribus Considered on p. 118 (K.3)
Bostrichus Considered on p. 119 (K.4)
Bruchus Considered on p. 119 (K.5)
Byrrhus Considered on p. 119 (K.6)
Cerocoma Considered on p. 119 (K.7)
Cistela Considered on p. 119 (K.8)
Clerus Placed on Official List in Opinion 1273 (1984)
Copris Considered on p. 120 (K.9)
Crioceris Placed on Official List in Opinion 908 (1970), considered further on p. 120 (K.10)
Cryptocephalus Considered on p. 120 (K.11)
Cucujus Considered on p. 120 (K.12)
Diaperis Considered on p. 121 (K.13)
Dyticus Placed on Official Index in Opinion 619 (1961), considered further on p. 121 (K.14)
Galeruca Considered on p. 121 (K.15)
Gyrinus Considered on p. 121 (K.16)
Hydrophilus Considered on p. 121 (K.17)
Lampyris Placed on Official List in Opinion 1273 (1984)
Luperus Placed on Official List in Opinion 1273 (1984)
Melolontha Considered on p. 121 (K.18)
Mylabris Considered on p. 121 (K.19)
Notoxus Considered on p. 122 (K.20)
Omalisus Considered on p. 122 (K.21)
Peltis Considered on p. 122 (K.22)
Platycerus Considered on p. 123 (K.23)
Prionus Considered on p. 123 (K.24)
Ptilinus Considered on p. 123 (K.25)
Pyrochroa Considered on p. 124 (K.26)
Rhinomacer Considered on p. 124 (K.27)
Scolytus Placed on Official List in Opinion 683 (1963)
Stenocorus Considered on p. 125 (K.28)
Tritoma Considered on p. 125 (K.29)

B. Crustacea

B.1 ***Asellus*** Geoffroy, 1762, vol. 2, p. 671. Type species by subsequent monotypy (Fourcroy, 1785, p. 541) *Oniscus aquaticus* Linnaeus, 1758 (p. 637), the only species included by reference in this genus by Geoffroy in 1762. I propose that *Asellus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

B.2 ***Binoculus*** (Geoffroy, 1762, vol. 2, p. 658 — unavailable name) Geoffroy in Müller, 1764, p. xxiv. Opinion 502 (1958) recorded placement on the Official Index of the names *Binoculus* Geoffroy, 1764 (as published in a rejected work) and *Binoculus* Müller, 1776 (p. 200) (suppressed under the plenary powers). The correct date for Geoffroy's work is 1762, since the date of 1764 refers only to the new title page to Geoffroy's work (see Hagen, 1862–1863). For *Binoculus* Müller, 1776 the correct reference should be to Geoffroy in Müller, 1764 because the use of *Binoculus* in Müller (1776) was merely a use of the name first made available by Geoffroy in Müller, 1764.

I propose that the entries on the Official Index be corrected as follows: *Binoculus* Geoffroy, 1764 to read *Binoculus* Geoffroy, 1762 and *Binoculus* Müller, 1776 to read *Binoculus* Geoffroy in Müller, 1764.

B.3 The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the generic name *Asellus* Geoffroy, 1762 is available despite publication in a suppressed work;

(2) to rule that:
  (a) the authorship of *Binoculus* Geoffroy, 1764 should be corrected to Geoffroy, 1762;
  (b) the authorship of *Binoculus* Müller, 1776 should be amended to Geoffroy in Müller, 1764;

(3) to place on the Official List of Generic Names in Zoology the name *Asellus* Geoffroy, 1762 (gender: masculine), type species, by subsequent monotypy (Fourcroy, 1785), *Oniscus aquaticus* Linnaeus, 1758;

(4) to place on the Official List of Specific Names in Zoology the name *aquaticus* Linnaeus, 1758, as published in the binomen *Oniscus aquaticus* (specific name of the type species of *Asellus* Geoffroy, 1762);

(5) to amend the following entries on the Official Index of Generic Names in Zoology:
  (a) *Binoculus* Geoffroy, 1764 to record authorship from Geoffroy, 1762 in accordance with the ruling in (2)(a) above;
  (b) *Binoculus* Müller, 1776 to record authorship from Geoffroy in Müller, 1764 in accordance with the ruling in (2)(b) above.

C. Insecta, Thysanura

C.1 ***Forbicina*** (Geoffroy, 1762, vol. 2, p. 611 — unavailable name) Geoffroy in Müller, 1764, p. xxiv. Two taxonomic species are included in the genus by Geoffroy (1762) and are the first subsequently included nominal species (Fourcroy, 1785, p. 525). Fourcroy includes *Lepisma saccharina* Linnaeus, 1758 (type species of *Lepisma* Linnaeus, 1758, as designated by Latreille (1810, p. 423)) and *Forbicina saltatrix* Geoffroy in Fourcroy, 1785 (p. 525) (a nomen dubium). In the 19th and early 20th centuries *Forbicina* was used in various senses as a valid name, but it is not in use now. I am unable to find a type designation for this genus. In the absence of such I here designate *Lepisma saccharina* Linnaeus, 1758 as type species so that *Forbicina* Geoffroy in Müller, 1764 becomes a junior objective synonym of *Lepisma*.

D. Insecta, Orthoptera

D.1 ***Acrydium*** (Geoffroy, 1762, vol. 1, p. 390 — unavailable name) Geoffroy in Müller, 1764, p. xvii. The Commission is currently considering an application from K.H.L. Key (BZN **45**: 191–193) proposing, among other actions, the suppression of *Acrydium* Müller, 1764. In commenting on this application, I pointed out (BZN **46**: 42–43) that the author of *Acrydium* was Geoffroy in Müller. I support Key's proposal for the suppression of *Acrydium* Geoffroy in Müller, 1764 and therefore do not propose any action to conserve *Acrydium* Geoffroy, 1762.

D.2 ***Mantes*** (Geoffroy, 1762, vol. 1, p. 399 — unavailable name) Geoffroy in Müller, 1764, p. xvii. *Mantis* Linnaeus, 1758, p. 425 and 1767, p. 689. In Opinion 299 *Mantes* Geoffroy, 1762 was placed on the Official Index as published in a rejected work. This does not affect the status of *Mantes* Geoffroy in Müller which remains an available name. The type species by subsequent monotypy (Fourcroy, 1785, p. 183) is indicated as *Gryllus gongylodes* Linnaeus, 1758 (an oriental species, now in the genus *Gongylus* Thunberg, 1815). It is clear from the distribution, description and figure in Geoffroy (1762) that the type species was misidentified and that Geoffroy was dealing with *Gryllus religiosus* Linnaeus, 1758 (now in the genus *Mantis*). As the name *Mantes* is not in use it is desirable to suppress the name *Mantes* Geoffroy in Müller, 1764.

The name *Mantis* should also be considered. Linnaeus used the name in 1758 (p. 425) as an 'intermediate term' between the generic name and the specific name but not, according to Opinion 279 (1954), thereby giving it subgeneric status. In 1767 (p. 689) he used it as a generic name. *Mantis* Linnaeus, 1767 was placed on the Official List (Opinion 149) and *Mantis* Linnaeus, 1758 on the Official Index (Opinion 299). Brünnich (1764, p. 60) used *Mantis* with a description apparently corresponding to Linnaeus's (1758), but Brünnich's work was not dealt with in Opinion 279; hence, *Mantis* Brünnich, 1764 is an available name predating *Mantis* Linnaeus, 1767. Since it is possible that other works used the nominal genus *Mantis* between 1758 and 1767, it is desirable to conserve the name *Mantis* Linnaeus, 1758 as a genus-group name (for comparable rulings see Opinions 158, 299 and 450, in which ten similar names were conserved as from Linnaeus, 1758). *Mantis* Linnaeus, 1758 should be placed on the Official List instead of *Mantis* Linnaeus, 1767.

An additional matter is the type species of *Mantis* which was given on the Official List as *Gryllus religiosus* Linnaeus, 1758, as designated by Latreille (1810). However, under Article 68e(i) the type species is, by Linnaean tautonymy, *Gryllus gongylodes* Linnaeus, 1758, the only species assigned by Linnaeus (in both 1758 and 1767) to *Mantis* in the synonymy of which is given a pre-Linnaean reference (viz. *Aldr*[*ovandus*], *ins*., *t*. 13, *f*. 21, Mantis) with the single word '*Mantis*'. Since acceptance of *G. gongylodes* as type species of *Mantis* would lead to a change in widely known generic and family-group names it is desirable to confirm Latreille's designation of *G. religiosus* as the type species of *Mantis*.

I propose the suppression of the name *Mantes* Geoffroy in Müller, 1764 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy and the conservation of the name *Mantis* Linnaeus, 1758 as a genus-group name with the type species *Gryllus religiosus* Linnaeus, 1758. Entries on the Official Lists and Indexes should be made or amended accordingly.

D.3 The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
    (a) to suppress the generic name *Mantes* Geoffroy in Müller, 1764 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
    (b) to rule that the genus-group name *Mantis* Linnaeus, 1758 is an available name;
    (c) to rule that the type species of *Mantis* Linnaeus, 1758, by subsequent designation by Latreille (1810), is *Gryllus religiosus* Linnaeus, 1758;

(2) to amend the entries on the relevant Official Lists relating to *Mantis* Linnaeus, 1767 and *Gryllus religiosus* Linnaeus, 1758 to record the rulings in (1)(b) and (c) above, namely that the authorship of *Mantis* is Linnaeus, 1758;

(3) to place on the Official Index of Rejected and Invalid Names in Zoology the name *Mantes* Geoffroy in Müller, 1764, as suppressed in (1)(a) above.

E. Insecta, Homoptera

E.1 ***Tetigonia*** (Geoffroy, 1762, vol. 1, p. 429 — unavailable name) Geoffroy in Fourcroy, 1785, p. 193. In Opinion 299 the names *Tetigonia* Fourcroy, 1785 (the authorship of which should be corrected to Geoffroy in Fourcroy) and *Tetigonia* Blanchard, 1852 were placed on the Official Index as junior homonyms of *Tettigonia* Linnaeus, 1758. However, under Article 56b these names are not homonyms since there is a one letter difference in the spelling. The type species of *Tetigonia* Geoffroy in Fourcroy, 1785 by subsequent designation (Blanchard, 1845, pp. 420, 425, as '*Tettigonia* Geoff.') is *Cicada viridis* Linnaeus, 1758 (p. 438), a species included in *Tetigonia* by Geoffroy (1762, p. 417) (see his 'Remarque' on pp. 428–429) with a reference to Linnaeus (1758) and one of the first included nominal species (Fourcroy, 1785, pp. 190, 193). *Tetigonia* Blanchard, 1852 is a later use of *Tetigonia* Geoffroy in Fourcroy, 1785. As *Tetigonia* Geoffroy in Fourcroy, 1785 is a senior objective synonym of *Cicadella* Latreille, 1817, already placed on the Official List in Opinion 647 (1963), I propose suppression of *Tetigonia* Geoffroy in Fourcroy, 1785 and emendation of the relevant entry on the Official Index. I also propose deletion of the entry on the Official Index for *Tetigonia* Blanchard, 1852 since this name was nothing more than a later use of *Tetigonia* Geoffroy in Fourcroy, 1785.

E.2 The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Tetigonia* Geoffroy in Fourcroy, 1785 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to amend the entry recorded as *Tetigonia* Fourcroy, 1785 on the Official Index of Rejected and Invalid Generic Names in Zoology in accordance with the ruling in (1) above and to record authorship from Geoffroy in Fourcroy, 1785;

(3) to delete the entry recorded as *Tetigonia* Blanchard, 1852 on the Official Index of Rejected and Invalid Generic Names in Zoology.

F. Insecta, Heteroptera

F.1 ***Hepa*** (Geoffroy, 1762, vol. 1, p. 479 — unavailable name) Geoffroy in Müller, 1764, p. xviii. Two species are included in the genus by Geoffroy (1762) and are the first subsequently included nominal species (Fourcroy, 1785, p. 222): *Nepa cinerea* Linnaeus, 1758 (type species of *Nepa* Linnaeus, 1758) and *Nepa linearis* Linnaeus, 1758 (type species of *Ranatra* Fabricius, 1790). *Hepa* was not used as a valid name after 1785. China (1941) designated *Nepa cinerea* Linnaeus, 1758 as type species of *Hepa* Geoffroy, 1762 and thus under Article 67f it also stands as type of *Hepa* Geoffroy in Müller, 1764; thus *Hepa* Geoffroy in Müller, 1764 became a junior objective synonym of *Nepa*.

G. Insecta, Neuroptera

G.1 ***Formicaleo*** (Geoffroy, 1762, vol. 2, p. 256 — unavailable name) Geoffroy in Müller, 1764, p. xx. The type of this genus is *F. nostras* Geoffroy in Fourcroy, 1785 (p. 360) by subsequent monotypy. In 1762 Geoffroy described this species, with a reference to *Hemerobius formicaleo* Linnaeus, 1758 (now *Myrmeleon formicarius* Linnaeus, 1767*), but apparently he later correctly realised that his species was different from Linnaeus's. *F. nostras* is a senior subjective synonym of *Myrmeleon europeus* MacLachlan, 1873, which is the type species of *Euroleon* Esben-Petersen, 1918, a name in nearly general current usage. The use of *Formicaleo* as a valid name in the 19th and early 20th centuries has a complex and tangled history, and for a long period thereafter it was not used as valid. Recently (Leraut, 1980, pp. 240, 244, and at least four further publications) *Formicaleo* 'Müller, 1764' was used as the valid name instead of *Euroleon*, but some authors still use *Euroleon* as the valid name. In my opinion conservation of *Formicaleo* is undesirable because the name was a source of confusion in the past and if conserved would cause further confusion because the very similar name *Formicaleon* Banks, 1911 is widely used in the same group. I propose the suppression of *Formicaleo* Geoffroy in Müller, 1764, which should be placed on the Official Index.

G.2 The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Formicaleo* Geoffroy in Müller, 1764 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Formicaleo* Geoffroy in Müller, 1764 as suppressed in (1) above.

H. Insecta, Hymenoptera

H.1 ***Crabro*** (Geoffroy, 1762, vol. 2, p. 261 — unavailable name) Geoffroy in Müller, 1764, p. xxii. Opinion 144 and Direction 4 suppressed *Crabro* Geoffroy, 1762 for the purposes of both the Principle of Priority and the Principle of Homonymy in order to conserve *Crabro* Fabricius, 1775. The suppression automatically applied to *Crabro* Geoffroy in Müller, 1764, and this was not cancelled by the subsequent ruling (Opinion 228) that Geoffroy's 1762 work was unavailable. So that the conservation of *Crabro* Fabricius, 1775 is clear beyond doubt I propose the addition of the words 'and all uses of *Crabro* prior to that by Fabricius, 1775' to the entry for *Crabro* Geoffroy, 1762 on the Official Index.

H.2 ***Diplolepis*** Geoffroy, 1762, vol. 2, p. 308. Latreille (1810, p. 436) indicated as type species *Cynips quercusfolii* Linnaeus, 1758, which is the type species of *Cynips* Linnaeus, 1758. This is not an originally included species of *Diplolepis*; however, it is a senior synonym of *Diplolepis quercus* Geoffroy in Fourcroy, 1785 (p. 391) which is one of the first subsequently included nominal species (Fourcroy, 1785, p. 391). This synonymy was established long before Latreille's work (Fabricius, 1775, p. 315). Moreover, both Linnaeus (1758, pp. 553–554) and Geoffroy (1762) refer to the figures in Roesel's book in their descriptions. However, the synonymy was not cited by Latreille (1810) and this makes his type designation invalid (Article 69a(v)). No subsequent valid designations of this type species are known to me. Karsch (1880, p. 288) (see Rohwer & Fagan, 1917, p. 365) designated as type species *Cynips rosae* Linnaeus, 1758 (p. 553), the only species properly provided with a reference to Linnaeus in the work of Geoffroy and one of the first subsequently included nominal species (Fourcroy, 1785, p. 391). As

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*Although *Myrmeleon formicarius* is a junior synonym of *Hemerobius formicaleo* it is in general use and merits conservation.

a result the formerly well known name *Rhodites* Hartig, 1840 disappears as a junior synonym of *Diplolepis*. European workers at one time used *Rhodites*, but *Diplolepis* came into increased use among American authors, and after Weld's (1952) monograph the name was accepted in this sense by European authors too. Thus *Cynips rosae* is the valid type species under the Code, and it corresponds to the nearly general current usage of *Diplolepis*. I propose that *Diplolepis* Geoffroy, 1762 be ruled an available name and placed on the Official List.

H.3 ***Eulophus*** Geoffroy, 1762, vol. 2, p. 312. Type species by subsequent monotypy (Olivier, 1791, p. 454) *Ichneumon ramicornis* Fabricius, 1781 (p. 441) (= *Cynips eulophus* Geoffroy in Fourcroy, 1785 (p. 389)), the only taxonomic species included in this genus by Geoffroy (1762). The long accepted synonymy of *E. ramicornis* (Fabricius, 1781) with *E. larvarum* (Linnaeus, 1758) was recently disproved by Graham (1988, p. 26). I propose that *Eulophus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

H.4 ***Urocerus*** Geoffroy, 1762, vol. 2, p. 264. Type species by subsequent monotypy (Fourcroy, 1785, p. 363) *Ichneumon gigas* Linnaeus, 1758, p. 560, the only species included in *Urocerus* by Geoffroy (1762). I propose that *Urocerus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

H.5 The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the following generic names are available despite publication in a suppressed work:
  (a) *Diplolepis* Geoffroy, 1762;
  (b) *Eulophus* Geoffroy, 1762;
  (c) *Urocerus* Geoffroy, 1762;

(2) to confirm that all uses of the name *Crabro* prior to that by Fabricius (1775) are suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy;

(3) to place on the Official List of Generic Names in Zoology the following names conserved in (1) above:
  (a) *Diplolepis* Geoffroy, 1762 (gender: feminine), type species, by subsequent designation by Karsch (1880), *Cynips rosae* Linnaeus, 1758;
  (b) *Eulophus* Geoffroy, 1762 (gender: masculine), type species, by subsequent monotypy (Olivier, 1791) *Ichneumon ramicornis* Fabricius, 1781;
  (c) *Urocerus* Geoffroy, 1762 (gender: masculine), type species, by subsequent monotypy (Fourcroy, 1785), *Ichneumon gigas* Linnaeus, 1758;

(4) to place on the Official List of Specific Names in Zoology the following names:
  (a) *gigas* Linnaeus, 1758, as published in the binomen *Ichneumon gigas* (specific name of the type species of *Urocerus* Geoffroy, 1762);
  (b) *ramicornis* Fabricius, 1781, as published in the binomen *Ichneumon ramicornis* (specific name of the type species of *Eulophus* Geoffroy, 1762);
  (c) *rosae* Linnaeus, 1758, as published in the binomen *Cynips rosae* (specific name of the type species of *Diplolepis* Geoffroy, 1762);

(5) to amend the entry for *Crabro* Geoffroy, 1762 on the Official Index of Rejected and Invalid Generic Names in Zoology in accordance with the ruling in (2) above.

J. Insecta, Lepidoptera

J.1 ***Pterophorus*** Geoffroy, 1762, vol. 2, p. 90. This name was placed on the Official List in Opinion 703 (1964) with the incorrect authorship of Schäffer, 1766 and incorrect data on the type species. In fact the name was already available from Geoffroy in Müller, 1764. For uniformity with other cases I propose the conservation of *Pterophorus* with authorship of Geoffroy, 1762 under the plenary powers. The Official List states that *Phalaena pentadactyla* Linnaeus, 1758 is type by designation of Whalley (1961, p. 159), but the same species was earlier designated as type species by Curtis (1827, text for pl. 161) and Curtis's designation is available regardless of the authorship attributed to the name *Pterophorus* (Article 67f). However, the first valid designation is by Latreille (1810, p. 442), who designated as type *Phalaena didactyla* Linnaeus, 1758 (p. 542) ('*Pterophorus didactylus*, Fab.') (now in the genus *Geina* Tutt, 1906). Therefore the type designation corresponding to general current usage should be conserved. I propose that *Pterophorus* Geoffroy, 1762 be ruled an available name with *Phalaena pentadactyla* Linnaeus, 1758 as type species, and that the entries for *Pterophorus* and *Phalaena pentadactyla* on the Official List be amended accordingly.

J.2 ***Tinaea*** (Geoffroy, 1762, vol. 2, p. 173 — unavailable name) Geoffroy in Müller, 1764, p. xix. *Tinaea* Geoffroy, 1762 (as published in a rejected work) was placed on the Official Index in Opinion 450 (1957), but this does not affect the status of *Tinaea* Geoffroy in Müller, 1764, which remains an available name. Corbet & Tams (1943) designated *Phalaena pellionella* Linnaeus, 1758 as type species of *Tinaea* Geoffroy, 1762 and it is therefore also type of *Tinaea* Geoffroy in Müller, 1764. As a result of this type designation *Tinaea* Geoffroy in Müller, 1764 becomes a junior objective synonym of *Tinea* Linnaeus, 1758.

J.3 The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
   (a) to rule that the generic name *Pterophorus* Geoffroy, 1762 is available despite publication in a suppressed work;
   (b) to set aside all fixations of type species for the nominal genus *Pterophorus* Geoffroy, 1762 prior to that by Curtis (1827) of *Phalaena pentadactyla* Linnaeus, 1758;
(2) to amend the entry for *Pterophorus* Schäffer, 1766 on the Official List of Generic Names in Zoology to record authorship from Geoffroy, 1762 and the type species designation by Curtis (1827) as ruled in (1) above;
(3) to amend the entry for *pentadactyla*, *Phalaena*, Linnaeus, 1758 on the Official List of Specific Names in Zoology to record it as the type species of *Pterophorus* Geoffroy, 1762.

K. Insecta, Coleoptera

K.1 ***Altica*** Geoffroy, 1762, vol. 1, p. 244. Type species by subsequent designation (Latreille, 1810, p. 432) *Chrysomela oleracea* Linnaeus, 1758 (p. 372), a taxonomic species included in this genus by Geoffroy (1762) and one of the first subsequently included nominal species (Fabricius, 1775, p. 112). The unjustified emendation *Haltica* Illiger, 1801 was in general use for a long time, but in recent taxonomic literature *Altica* is used more often. I propose that *Altica* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.2 ***Anthrenus*** Geoffroy, 1762, vol. 1, p. 113. Geoffroy (1762) included in the genus two taxonomic species: *Dermestes scrophulariae* Linnaeus, 1758 (p. 356) (misidentification of *Anthrenus pimpinellae* Fabricius, 1775) and *A. florilegus* Geoffroy in Fourcroy, 1785 (p. 27) (junior synonym of *A. verbasci* Linnaeus, 1767). Fabricius (1775, p. 61) included four nominal species in the genus as follows (current generic and subgeneric nomenclature according to Mroczkowski, 1975): *Anthrenus (Florilinus) museorum* (Linnaeus, 1761); *A. (A.) pimpinellae* Fabricius, 1775; *A. (A.) scrophulariae* (Linnaeus, 1758); and *A. (Nathrenus) verbasci* (Linnaeus, 1767) (misidentification of *A. museorum* (Linnaeus)). Latreille (1810, p. 428) gave as type species '*Anthrenus verbasci*, Fab.', which can be referred to *A. verbasci* Linnaeus or to *A. museorum* Linnaeus (*verbasci* sensu Fabricius). Westwood ([1838], p. 15) and Thomson (1859, p. 73) indicated as type species *A. museorum*. If any of these designations are accepted the current subgeneric names in this economically very important genus would be changed. Hope (1840, p. 108) indicated as type species *A. pimpinellae* but this type designation is not accepted by recent workers. Mroczkowski (1968, p. 139) seems to be the first who, in accordance with previous usage, designated *Dermestes scrophulariae* Linnaeus, 1758 as the type species of *Anthrenus*. I accordingly propose that *Anthrenus* Geoffroy, 1762 be ruled an available name and placed on the Official List, with *Dermestes scrophulariae* Linnaeus, 1758 as type species.

K.3 ***Anthribus*** Geoffroy, 1762, vol. 1, p. 306. Type species by subsequent designation (Jordan, 1931, p. 287) *Anthribus fasciatus* Forster, 1770 (p. 5)* (= *A. marmoratus* Geoffroy in Fourcroy, 1785 (p. 136)), a taxonomic species included in the genus by Geoffroy (1762) and one of the two first subsequently included nominal species (Forster, 1770, p. 5). The usage of the name *Anthribus* has a tangled history. Latreille (1810, p. 430) designated as type species *Curculio latirostris* Fabricius, 1775 (= *A. ater* Geoffroy in Fourcroy, 1785 (p. 137)), a junior synonym of *Curculio resinosus* Scopoli, 1763 (now in the genus *Platyrhinus* [Clairville], 1798)**. This taxonomic species was included in the genus by Geoffroy (1762) but does not belong to the first subsequently included nominal species. Although this concept of *Anthribus* was supported by Bradley (1946, p. 96) it was very rarely used. Schönherr (1823, col. 1135) designated as type species *Curculio albinus* Linnaeus, 1758 (now in the genus *Platystomos* Schneider, 1791). This was not one of Geoffroy's originally included taxonomic species nor was it one of the first subsequently included nominal species; it was first placed in *Anthribus* by Fabricius (1790, p. 220; 1792, p. 375). *Anthribus*, with type species *albinus*, has usage in the 19th and 20th centuries, including some recent papers. *A. fasciatus* was usually placed in the genus *Brachytarsus* Schönherr, 1823. Jordan (1931, p. 287) considered that *Brachytarsus* should be replaced by *Anthribus*. This concept of *Anthribus* (with *fasciatus* as type) was accepted by Hoffmann (1945, p. 152), Valentine (1960, p. 45), Angelov (1963, p. 139; 1981, p. 43), Silfverberg (1978, p. 118), Chao (1976, p. 339),

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*The availability of this and some other specific names was provided by Forster (1770) with a reference to a description in Geoffroy's (1762) work. These names are currently credited to the next work of the same author (Forster, 1771.)

**The work of Clairville (1798, 1806) was published anonymously and in many reference books (Hagen, 1862–1863; Sherborn, 1902, 1922–1933; Neave, 1939–1940) is credited to J.R. Schellenberg. In fact, the original French text was written by J. de Clairville, the translation of the parallel German text was by L. Pool and the illustrations were by Schellenberg (see Méquignon, 1940; Strand, 1942; and especially Wolff, 1858–1862, p. 402).

Morimoto (1978, p. 35) and some other authors. I consider that it would be in the interests of nomenclatural stability for this concept to be accepted and propose that *Anthribus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.4 ***Bostrichus*** Geoffroy, 1762, vol. 1, p. 301. Type species by subsequent designation (Latreille, 1810, p. 431) *Dermestes capucinus* Linnaeus, 1758 (p. 355) (= *Bostrichus ruber* Geoffroy in Fourcroy, 1785 (p. 133)), the only taxonomic species included in this genus by Geoffroy (1762) and one of the first subsequently included nominal species (Fabricius, 1775, p. 59). The often used emendation *Bostrychus* Agassiz, 1846 is unjustified and preoccupied by *Bostrychus* Lacépède, 1802 (Osteichthyes). I propose that *Bostrichus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.5 ***Bruchus*** Geoffroy, 1762, vol. 1, p. 163. The Commission is currently considering an application from L. Borowiec (BZN **45**: 194–196) for the conservation of the generic name *Bruchus* Linnaeus, 1767. I support this application and therefore do not propose any action to conserve *Bruchus* Geoffroy, 1762.

K.6 ***Byrrhus*** (Geoffroy, 1762, vol. 1, p. 108 — unavailable name) Geoffroy in Müller, 1764, p. xii. Geoffroy (1762) included five taxonomic species in the genus. The first one was provided with a reference to *Xyloterus domesticus* (Linnaeus, 1758) (IPIDAE) but was really *Anobium punctatum* (De Geer, 1774) (ANOBIIDAE). Other species were *Stegobium paniceum* (Linnaeus, 1758), *Ernobius mollis* (Linnaeus, 1758), *Hadrobregmus pertinax* (Linnaeus, 1758) and *Ochina ptinoides* (Marsham, 1802) (= *Byrrhus fasciatus* Geoffroy in Fourcroy, 1785 (p. 26), name preoccupied) all now placed in the ANOBIIDAE. Crotch (1870, p. 43) designated '*Anobium domesticum*' as type species of *Byrrhus* Geoffroy, but this designation is ambiguous because of misidentification of the Linnaean species by Geoffroy. The name *Byrrhus* was used only rarely and only in the past for species now placed in the ANOBIIDAE and seems never to have been used for species in the IPIDAE. Linnaeus (1767, p. 568) used the name *Byrrhus* in a different meaning for beetles now placed in the BYRRHIDAE. The type species of *Byrrhus* Linnaeus by subsequent designation (Latreille, 1810, p. 428) is *Dermestes pilula* Linnaeus, 1758 (p. 356). In accordance with current usage, I propose conservation of *Byrrhus* Linnaeus, 1767 by suppression of all previous uses of the name and the placing of *Byrrhus* Linnaeus, 1767 on the Official List.

K.7 ***Cerocoma*** Geoffroy, 1762, vol. 1, p. 357. Type species by subsequent monotypy (Fabricius, 1775, p. 262) *Meloe schaefferi* Linnaeus, 1758 (p. 420) (= *Cerocoma viridis* Geoffroy in Fourcroy, 1785 (p. 163)), the only taxonomic species included in this genus by Geoffroy (1762). I propose that *Cerocoma* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.8 ***Cistela*** (Geoffroy, 1762, vol. 1, p. 115 — unavailable name) Schaeffer, 1766, pl. xlv and text. *Pistella* Müller, 1764, p. xiii (misspelling of *Cistela*). Geoffroy (1762) included three taxonomic species in this genus, and Forster (1770, p. 4) first subsequently included three nominal species. All these species are placed in the genus *Byrrhus* Linnaeus, 1767 (BYRRHIDAE). *Dermestes pilula* Linnaeus, 1758, the type species of the genus *Byrrhus* Linnaeus, 1767 but not one of the nominal species included in *Cistela* by Forster (1770), was designated as type species of *Cistela* Geoffroy by Crotch (1870, p. 43). Fabricius (1775, pp. 116–118) included 13 nominal species in the genus; these are now placed in various families, three of them in the ALLECULIDAE. One of these three species, *Chrysomela sulphurea* Linnaeus, 1758 (now in the genus *Cteniopus* Solier, 1835) was designated as type of *Cistela* Fabricius by Latreille (1810, p. 429) and another, *Chrysomela ceramboides* Linnaeus, 1758 (now in the genus *Pseudocistela* Crotch, 1873), by Curtis (1836, text for pl. 594). In the 19th and 20th centuries the name *Cistela* was used in the sense of Fabricius for various genera of the ALLECULIDAE, and for two genera of BYRRHIDAE (*Byrrhus* and *Cytilus*), i.e. in the sense of Geoffroy and Forster. The name is rarely used in modern literature. I propose the suppression of *Cistela* Schaeffer, 1766, the first available use of the name, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy. The name *Pistella* Müller, 1764, which was an unjustified emendation or misspelling of *Cistela*, was overlooked by all nomenclators, was never in use, and I propose its suppression also. The names should then be placed on the Official Index.

K.9 ***Copris*** Geoffroy, 1762, vol. 1, p. 87. Type species by subsequent designation (Latreille, 1810, p. 428) *Scarabaeus lunaris* Linnaeus, 1758 (p. 346), a taxonomic species included in this genus by Geoffroy (1762) and one of three first subsequently included nominal species (Müller, 1776, p. 55). I propose that *Copris* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.10 ***Crioceris*** Geoffroy, 1762, vol. 1, p. 237. This name was placed on the Official List in Opinion 908 (June 1970); authorship was attributed to Müller, 1764 (p. xiii) because Geoffroy's work had been suppressed; the type species was designated under the plenary powers as *Chrysomela asparagi* Linnaeus, 1758. Geoffroy established five generic names in the family CHRYSOMELIDAE; these five genera (*Altica, Crioceris, Cryptocephalus, Galeruca* and *Luperus*) are all widely distributed and have numerous species. It would be highly confusing if four of these generic names were attributed to Geoffroy (1762) as proposed in this application and the fifth (*Crioceris*) to Müller, 1764. It would be much more appropriate for the availability of *Crioceris* now to be taken as from Geoffroy, 1762. I propose that *Crioceris* Geoffroy, 1762 be ruled an available name and the Official List amended accordingly.

K.11 ***Cryptocephalus*** Geoffroy, 1762, vol. 1, p. 231. Type species by subsequent designation (Latreille, 1810, p. 432) *Chrysomela sericea* Linnaeus, 1758 (p. 374), a taxonomic species included in this genus by Geoffroy (1762) and one of the first subsequently included nominal species (Fabricius, 1775, p. 109). I propose that *Cryptocephalus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.12 ***Cucujus*** (Geoffroy, 1762, vol. 1, p. 123 — unavailable name) Geoffroy in Müller, 1764, p. xvi. Geoffroy (1762) proposed this name in replacement of *Buprestis* Linnaeus, 1758, because he used the name *Buprestis* (as did Linnaeus in the pre-1758 editions of *Systema Naturae*) for carabids (*Carabus* and *Cicindela* of Linnaeus, 1758). Geoffroy included in *Cucujus* six taxonomic species, three with references to Linnaean species (but all were misidentified). All species of Geoffroy (the identity of *C. viridis* Geoffroy in Fourcroy, 1785 (p. 33) is unknown to me), and all mentioned Linnaean species belong to various genera of the BUPRESTIDAE. The name *Cucujus* was rarely used in this sense. Fabricius (1775, p. 204) used the name *Cucujus* in a different sense. The only species included by him in the genus was *C. depressus* Fabricius, 1775 (junior synonym of *Meloe cinnabarina* Scopoli, 1763 (p. 60)), the type by monotypy. *Cucujus* Fabricius is the type genus of the CUCUJIDAE. In accordance with general current usage I propose the conservation of *Cucujus* Fabricius, 1775 by suppression of all previous uses of the name *Cucujus*, and the placing of *Cucujus* Fabricius, 1775 on the Official List.

K.13 ***Diaperis*** Geoffroy, 1762, vol. 1, p. 337. Type species by subsequent monotypy (Müller, 1776, p. 74) *Chrysomela boleti* Linnaeus, 1758 (p. 371) (= *Diaperis fasciata* Geoffroy in Fourcroy, 1785 (p. 153)), the only taxonomic species included in this genus by Geoffroy (1762). I propose that *Diaperis* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.14 ***Dyticus*** (Geoffroy, 1762, vol. 1, p. 185 — unavailable name) Geoffroy in Müller, 1764, p. xvi. Geoffroy (1762) consistently used the spelling *Dyticus* when he referred to this genus although he did cite the spelling *Dytiscus* when mentioning Linnaean names in the synonymies of the species. In Müller (1764) the spelling *Dyticus* was used without reference to *Dytiscus*. The type species of *Dyticus* [sic] was designated by Latreille (1810, pp. 167, 426) as *Dytiscus* [sic] *marginalis* 'Fabricius' (i.e. Linnaeus, 1758), thereby making *Dyticus* a junior objective synonym of *Dytiscus* Linnaeus, 1758. *Dyticus* was placed on the Official Index in Opinion 619 (1961) as a junior objective synonym; the author was given as Müller, 1776 as the first supposedly available use. The entry on the Official Index should be amended to attribute authorship of *Dyticus* to Geoffroy in Müller, 1764.

K.15 ***Galeruca*** Geoffroy, 1762, vol. 1, p. 251. Type species by subsequent designation (Latreille, 1810, p. 432) *Chrysomela tanaceti* Linnaeus, 1758 (p. 369), a taxonomic species included in this genus by Geoffroy (1762) and one of the first subsequently included nominal species (Müller, 1776, p. 83). I propose that *Galeruca* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.16 ***Gyrinus*** Geoffroy, 1762, vol. 1, p. 193. Type species by subsequent designation (Latreille, 1810, p. 426) *Dytiscus natator* Linnaeus, 1758 (p. 412), the only taxonomic species included in this genus by Geoffroy (1762) and one of two first subsequently included nominal species (Linnaeus, 1767, p. 567). I propose that *Gyrinus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.17 ***Hydrophilus*** Geoffroy, 1762, vol. 1, p. 180. Type species by subsequent designation (Latreille, 1810, p. 428) *Dytiscus piceus* Linnaeus, 1758 (p. 411), a taxonomic species included in this genus by Geoffroy (1762) and one of the first subsequently included nominal species (De Geer, 1774, p. 371). I propose that *Hydrophilus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.18 ***Melolontha*** (Geoffroy, 1762, vol. 1, p. 195 — unavailable name) Geoffroy in Müller, 1764, p. xiii. Geoffroy (1762) included five taxonomic species in the genus, all now placed in the subfamilies CLYTRINAE and CRYPTOCEPHALINAE of the family CHRYSOMELIDAE. *Chrysomela quadripunctata* Linnaeus, 1758 (now in *Clytra*) was designated as type species of *Melolontha* Geoffroy by Crotch (1870, p. 43). The name *Melolontha* was used in this sense only in the past and then only rarely. Fabricius (1775, p. 31) used the name *Melolontha* in a different sense for members of the family SCARABAEIDAE. *Scarabaeus melolontha* Linnaeus, 1758 (p. 351) (= *Melolontha vulgaris* Fabricius, 1775) is the type species of *Melolontha* Fabricius by absolute tautonomy. In accordance with general current usage I propose conservation of *Melolontha* Fabricius, 1775 by suppression of all previous uses of the name *Melonotha*, and the placing of *Melolontha* Fabricius, 1775 on the Official List.

K.19 ***Mylabris*** Geoffroy, 1762, vol. 1, p. 266. The Commission is currently considering an application by L. Borowiec (BZN **45**: 194–196) for the conservation of the generic name *Mylabris* Fabricius, 1775. I support this application and therefore do not propose any action to conserve *Mylabris* Geoffroy, 1762.

K.20 ***Notoxus*** Geoffroy, 1762, vol. 1, p. 356. Type species by subsequent designation (Latreille, 1810, p. 430) *Attelabus monoceros* Linnaeus, 1761 (p. 185) (= *Notoxus cucullatus* Geoffroy in Fourcroy, 1785 (p. 162)), the only taxonomic species included in this genus by Geoffroy (1762) and one of two first subsequently included nominal species (Fabricius, 1775, p. 158). I propose that *Notoxus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.21 ***Omalisus*** Geoffroy, 1762, vol. 1, p. 179 (*Omalysus* Müller, 1764, p. xvi). Type species by subsequent monotypy (Fourcroy, 1785, p. 64) *Omalisus fontisbellaquaei* Geoffroy in Fourcroy, 1785 (p. 64), the only taxonomic species included in this genus by Geoffroy (1762). The unjustified emendation *Homalisus* Illiger, 1801 was in general use for a long time and was consistently used with the authorship of Geoffroy, 1762. The family-group name HOMALISIDAE (or HOMALISINAE) was widely used. However, in recent years usage has become more variable: some authors still use *Homalisus*, while some use *Omalisus* (Burakowski, 1988, p. 571) or *Omalysus* (Silfverberg, 1978, p. 117; Lawrence, 1987, p. 15). I propose that *Omalisus* Geoffroy, 1762 (in its original spelling) be ruled an available name and placed on the Official List.

K.22 ***Peltis*** (Geoffroy, 1762, vol. 1, p. 117 — unavailable name) Geoffroy in Müller, 1764, p. xiii. Geoffroy (1762) included ten taxonomic species in the genus. The identity is known to me of nine of these species: one is placed in the LEIODIDAE and eight (including both those that have a reference to Linnaeus, 1758) are placed in the SILPHIDAE. One of these species, *Silpha quadripunctata* Linnaeus, 1758 (type species of *Xylodrepa* Thomson, 1859) was designated by Crotch (1870, p. 43) as type species of *Peltis* Geoffroy. Müller (1776, pp. 63–65) was the first author to include nominal species in the genus. Of 26 nominal species included by him, 14 or 15 are Linnaean. At least eight of these species are placed in the SILPHIDAE and two (*Silpha grossa* Linnaeus, 1758 and *S. ferruginea* Linnaeus, 1758) to the family now named PELTIDAE or TROGOSSITIDAE. Some species are placed in other families.

Kugelann (1792, p. 508) used the name in a restricted sense for three species now placed in the PELTIDAE, among them *S. grossa* and *S. ferruginea* already included in *Peltis* by Müller, 1776. The same concept of *Peltis* was accepted by Illiger (1798, p. 369) and Fabricius (1801, p. 343). In the 19th century the name *Peltis* was sometimes used for various genera of SILPHIDAE and sometimes for PELTIDAE as now understood, in the latter case cited with Kugelann's authorship or, rarely, with Illiger's or Fabricius's authorship. Hope (1840, p. 150) designated *Silpha grossa* Linnaeus, 1758 (p. 361) as type species of '*Peltis* Fabricius' (Kugelann was shown as author of *Peltis* on p. 3). In the first half of the 20th century *Peltis* almost disappeared from usage, but after Crowson's works (1955, p. 82; 1964, p. 286) *Peltis* (in the sense of Kugelann) and PELTIDAE became widely used.

It is a matter for discussion whether the name *Peltis* should be attributed to Müller (1776), who was the first author to include in the genus species of the PELTIDAE as now understood, or to Kugelann (1792), who restricted the use of the name to species of the PELTIDAE alone (see above). As *Peltis* has been consistently used with Kugelann's authorship and has never been used with the authorship of Müller, I propose that Kugelann's authorship be accepted.

In accordance with current usage I propose conservation of *Peltis* Kugelann, 1792 by suppression of all previous uses of the name and the placing of *Peltis* Kugelann, 1792 on the Official List.

K.23 ***Platycerus*** Geoffroy, 1762, vol. 1, p. 59. Type species by subsequent designation (Latreille, 1810, p. 429) *Scarabaeus caraboides* Linnaeus, 1758 (p. 354), one of the taxonomic species included in the genus by Geoffroy (1762) and one of the first subsequently included nominal species (Fourcroy, 1785, p. 3). I propose that *Platycerus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.24 ***Prionus*** Geoffroy, 1762, vol. 1, p. 198. Seven nominal species were first included in the genus by Scopoli (1772, pp. 99–100), three of which were new and seem never to have been clarified subsequently. The remaining four are now known as *Strangalina attenuata* (Linnaeus, 1758), *Strangalia quadrifasciata* (Linnaeus, 1758), *Pachyta quadrimaculata* (Linnaeus, 1758) (= *Cerambyx timidus* Scopoli, 1763) and *Leptura sanguinolenta* (Linnaeus, 1758). None of these species was designated subsequently as type of *Prionus* and I think none of them was included in *Prionus* after Scopoli's work. Latreille (1810, p. 431) designated as type *Cerambyx coriarius* Linnaeus, 1758 (p. 389), the only taxonomic species included in this genus by Geoffroy (1762) and one of the nominal species subsequently included by Fabricius (1775, p. 161). In accordance with general current usage I propose that *Prionus* Geoffroy, 1762 be ruled an available name and placed on the Official List, with *Cerambyx coriarius* Linnaeus, 1758 as the type species by designation under the plenary powers.

K.25 ***Ptilinus*** Geoffroy, 1762, vol. 1, p. 64. Geoffroy (1762) included in the genus two taxonomic species, the first provided with an incorrect reference to *Dermestes pectinicornis* Linnaeus, 1758 (now *Ptilinus pectinicornis*) and the second with an erroneous supposition on identity with *Cantharis pectinicornis* Linnaeus, 1758 (now in *Schizotus* Newman, 1838, PYROCHROIDAE). In Fourcroy (1785, p. 4) the corresponding species were named by Geoffroy as *P. fuscus* and *P. flavescens*. Possibly Geoffroy noticed the non-identity of his species with the Linnaean species after 1762 and therefore did not use Linnaean specific names but instead gave new names to both species. *Ptilinus fuscus* Geoffroy in Fourcroy, 1785 is regarded now as a good species in *Ptilinus* and *P. flavescens* Geoffroy in Fourcroy, 1785 as a junior synonym of *P. fuscus*. Müller (1776, p. 81) was the first author to include a nominal species in *Ptilinus*. His only species, *P. cylindricus* Müller, 1776 is the type species by subsequent monotypy. It was provided with a description, which corresponds with *P. fuscus*, and an incorrect citation in synonymy of *Dermestes pectinicornis* Linnaeus, 1758 (as *Ptinus pectinicornis*) and with a correct reference to Geoffroy. Müller did not state categorically that *P. cylindricus* was established as a replacement name for *D. pectinicornis*; therefore, the provisions of Article 72e of the Code do not apply and *P. cylindricus* Müller should be considered as a senior synonym of *P. fuscus* Geoffroy in Fourcroy. Furthermore, *P. cylindricus* Müller, 1776 is a senior primary homonym of *P. cylindricus* Germar, 1817 (p. 202) (now placed in the genus *Metholcus*). Since both *P. fuscus* Geoffroy in Fourcroy, 1785 and *M. cylindricus* (Germar, 1817) are in general current usage, the former an economically important species, and since *P. cylindricus* Müller has not been used as a valid name in the last 200 years, I propose the suppression of *P. cylindricus* Müller for the purposes of both the Principle of Priority and the Principle of Homonymy. This suppression would not prevent its use as a nominal type species which should be cited as *P. cylindricus* Müller, 1776 (a suppressed senior synonym of *P. fuscus* Geoffroy in Fourcroy, 1785). Some authors (e.g. Lucas, 1920, p. 557; White, 1974, p. 447) gave *P. fuscus* as the type species, while others (e.g. Latreille, 1810,

p. 427; Westwood, [1838], p. 29; Hope, 1840, p. 147; Thomson, 1859, p. 90) gave *D. pectinicornis* as the type species. Both species are closely related and belong to *Ptilinus* sensu stricto. I propose that *Ptilinus* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.26 ***Pyrochroa*** Geoffroy, 1762, vol. 1, p. 338. Latreille (1810, p. 430), followed by Curtis (1836, text for pl. 590), designated as type species *Lampyris rubens* Schaller, 1783 (= *Pyrochroa ruberrima* Geoffroy in Fourcroy, 1785 (p. 153)), a junior synonym of *P. serraticornis* (Scopoli, 1763). Although it was the only taxonomic species included in *Pyrochroa* by Geoffroy (1762) it was not one of the first subsequently included nominal species (Fabricius, 1775, p. 202; De Geer, 1775, p. 20) and therefore Latreille's type designation is invalid. Westwood ([1838], p. 30) designated as type species *Cantharis coccinea* Linnaeus, 1761 (p. 202). Although this taxonomic species was not included in the genus by Geoffroy (1762) it was one of the first subsequently included nominal species (Fabricius, 1775) and is therefore available for type designation. The same type species was accepted in subsequent literature (Thomson, 1859, p. 123; Blair, 1914) and is supported by me in this proposal. I propose that *Pyrochroa* Geoffroy, 1762 be ruled an available name and placed on the Official List.

K.27 ***Rhinomacer*** (Geoffroy, 1762, vol. 1, p. 269 — unavailable name) Geoffroy in Müller, 1764, p. xiii. Geoffroy (1762) included 11 taxonomic species in the genus. The identity is known to me for nine species: all are placed in various families of the CURCULIONOIDEA (formerly regarded as one family CURCULIONIDAE). Five species belong to various genera of the ATTELABIDAE, three to *Apion* (APIONIDAE) and one to *Lixus* (CURCULIONIDAE, CLEONINAE). Müller (1776, pp. 90–91) first subsequently included 15 nominal species in the genus. The identity is known to me for ten of these species, eight of which are placed in the ATTELABIDAE, one belongs to *Apion* (APIONIDAE) and one to *Miarus* (CURCULIONIDAE, MECININAE). Gozis (1881, p. cxii) designated '*violaceus* Scop. (*betuleti* F.)' as type species of *Rhinomacer* Geoffroy. Both names are junior synonyms of *Byctiscus betulae* (Linnaeus, 1758). Müller (1776) included *betulae* Linnaeus in *Rhinomacer*, but he did not mention *violaceus* or *betuleti* and therefore Gozis's type designation is invalid. Silfverberg's (1978, p. 118) designation of '*Rhinomacer coryli* Müller, 1776 (not Linnaeus, 1758),... a junior synonym of *Attelabus nitens* (Scop.), the type of *Attelabus* Linnaeus, 1758' as type species of '*Rhinomacer* Müller, 1764' is invalid also, as '*Rhinomacer coryli* Müller, 1776' is not a nominal species but a misidentification of *Attelabus coryli* Linnaeus, 1758. The name *Rhinomacer* was used for ATTELABIDAE by several 18th and 19th century authors. It is not used in this sense now. Fabricius (1781, p. 199) included in the genus *Rhinomacer* only one nominal species, *R. curculioides* Fabricius, 1781. It was designated as type of '*Rhinomacer* Fab.' by Latreille (1810, p. 430) who used the emended spelling '*curculionoides*'. *R. curculioides* is now placed in the genus *Mycterus* [Clairville], 1798 (PYTHIDAE). The name *Rhinomacer* was used instead of *Mycterus* (i.e. in the sense of Fabricius, 1781) by several 19th century authors, but not in the current literature. Fabricius (1787, p. 123) included a new nominal species in the genus besides *R. curculioides*, namely *R. attelaboides* Fabricius, 1787. The last was designated as type of '*Rhinomacer* Fab.' by Schönherr (1823, col. 1136). The usage of *Rhinomacer* in the sense of *attelaboides* as type species prevailed during the 19th and 20th centuries. Gozis (1881, p. cxii) proposed the new name *Cimberis* for *Rhinomacer* Fabricius, 1787 non Geoffroy, with *R. attelaboides* as the type species by monotypy. In the last 30 years usage of *Cimberis* (instead of *Rhinomacer*) and of the family name NEMONYCHIDAE or CIMBERIDIDAE (instead of RHINOMACERIDAE) has been widespread (e.g. Crowson, 1955, p. 159; 1985, p. 144; Hatch, 1972, p. 335; Kuschel, 1989, pp. 121–122, 132–133). I therefore propose the suppression of the name *Rhinomacer* Geoffroy in Müller, 1764 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy, and the placing of *Rhinomacer* Geoffroy in Müller, 1764 on the Official Index. This action makes the name *Rhinomacer* Fabricius, 1787 also invalid, as a junior homonym.

K.28 ***Stenocorus*** Geoffroy, 1762, vol. 1, p. 221. Geoffroy (1762) included twelve taxonomic species in this genus. Nine nominal species were first subsequently included in the genus (Scopoli, 1772, pp. 96–99). The identity of five species described by Scopoli is unknown to me. The remaining are now known as *Clytus arietis* (Linnaeus, 1758), *Plagionotus arcuatus* (Linnaeus, 1758), *Calidium violaceum* (Linnaeus, 1758) and *Phymatodes testaceus* (Linnaeus, 1758) (= *Stenocorus fenicus* Scopoli, 1772). These species were not included in the work of Geoffroy (1762) or in the work of Fabricius (1775, p. 178), which was the first use of the name *Stenocorus* following Scopoli (1772). None of these species was designated subsequently as type. Crotch (1870, p. 43) designated as type species *Leptura meridiana* Linnaeus, 1758 (p. 398) (= *Stenocorus geniculatus* Geoffroy in Fourcroy, 1785 (p. 86)) which was included in the genus by Geoffroy (1762) and by Fabricius (1775). Following the concept of the genus given by Bedel (1889, p. 11) and Aurivillius (1912, p. 179), *L. meridiana* was accepted as type species by Lucas (1920, p. 608) and Plavilstschikov (1936, p. 158). This concept of the genus seems to be prevalent. Thomson (1864, p. 144) had designated as type *Stenocorus parisinus* Geoffroy in Fourcroy, 1785 (p. 85) (a junior synonym of *Rhagium bifasciatum* Fabricius, 1775), and Swaine & Hopping (1928, p. 12) designated *Cerambyx inquisitor* Linnaeus, 1758 (now in *Rhagium*). Both of these species were included in *Stenocorus* by Geoffroy (although *inquisitor* was misidentified) and both were excluded from *Stenocorus* and placed in his new genus *Rhagium* by Fabricius (1775). By accepting Thomson's or Swaine & Hopping's type designation, *Stenocorus* becomes a senior subjective synonym of *Rhagium*. This concept of *Stenocorus* was used by many authors in the second half of the 19th century (e.g. Thomson, 1860, p. 156; 1864, p. 144; Lacordaire, 1869, p. 428) as well as by most American authors in the 20th century. Recently this treatment of *Stenocorus* by American specialists has stopped (Chemsak, 1964, p. 234; Linsley & Chemsak, 1972, p. 44). In accordance with general current usage I propose that *Stenocorus* Geoffroy, 1762 be ruled an available name and placed on the Official List, with *Leptura meridiana* Linnaeus, 1758 as the type species by designation under the plenary powers.

K.29 ***Tritoma*** (Geoffroy, 1762, vol. 1, p. 335 — unavailable name) Geoffroy in Müller, 1764, p. xiv. The only taxonomic species included in the genus by Geoffroy (1762) was *Mycetophagus quadripustulatus* (Linnaeus, 1761) (= *Tritoma bimaculata* Geoffroy in Fourcroy, 1785 (p. 152)), belonging to the family MYCETOPHAGIDAE (see Arrow, 1945, p. 117). This species was designated as type species of *Tritoma* Geoffroy by Crotch (1870, p. 43). Fabricius (1775, p. 68) used the name *Tritoma* for five nominal species, among them *T. bipustulata* Fabricius, 1775 (p. 68) (which Fabricius believed to be Geoffroy's '*Tritoma*'). *Tritoma bipustulata* Fabricius (now in the family EROTYLIDAE) was designated as type species of *Tritoma* by Latreille (1810, p. 432). This type designation corresponds to general current usage, although there was a tendency in the past to replace *Tritoma* Fabricius non Geoffroy with *Cyrtotriplax* Crotch, 1873. In accordance with general current usage I propose conservation of *Tritoma* Fabricius, 1775 by suppression of all previous uses of the name *Tritoma* and the placing of *Tritoma* Fabricius, 1775 on the Official List.

K.30 The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the following generic names are available despite publication in a suppressed work:
  (a) *Altica* Geoffroy, 1762;
  (b) *Anthrenus* Geoffroy, 1762;
  (c) *Anthribus* Geoffroy, 1762;
  (d) *Bostrichus* Geoffroy, 1762;
  (e) *Cerocoma* Geoffroy, 1762;
  (f) *Copris* Geoffroy, 1762;
  (g) *Crioceris* Geoffroy, 1762;
  (h) *Cryptocephalus* Geoffroy, 1762;
  (i) *Diaperis* Geoffroy, 1762;
  (j) *Galeruca* Geoffroy, 1762;
  (k) *Gyrinus* Geoffroy, 1762;
  (l) *Hydrophilus* Geoffroy, 1762;
  (m) *Notoxus* Geoffroy, 1762;
  (n) *Omalisus* Geoffroy, 1762;
  (o) *Platycerus* Geoffroy, 1762;
  (p) *Prionus* Geoffroy, 1762;
  (q) *Ptilinus* Geoffroy, 1762;
  (r) *Pyrochroa* Geoffroy, 1762;
  (s) *Stenocorus* Geoffroy, 1762;

(2) to use its plenary powers to set aside all fixations of type species for the following genera as indicated:
  (a) for *Anthrenus* Geoffroy, 1762 — prior to that by Mroczkowski (1968) of *Dermestes scrophulariae* Linnaeus, 1758;
  (b) for *Prionus* Geoffroy, 1762 — all previous fixations of type species, and then to designate *Cerambyx coriarius* Linnaeus, 1758 as type species;
  (c) for *Stenocorus* Geoffroy, 1762 — all previous fixations of type species, and then to designate *Leptura meridiana* Linnaeus, 1758 as type species;

(3) to use its plenary powers to suppress the following generic names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
  (a) *Cistela* Schaeffer, 1766;
  (b) *Pistella* Müller, 1764;
  (c) *Rhinomacer* Geoffroy in Müller, 1764;

(4) to use its plenary powers to suppress the following generic names for the purposes of both the Principle of Priority and the Principle of Homonymy:
  (a) *Byrrhus* Geoffroy in Müller, 1764 and all other uses of the name *Byrrhus* prior to *Byrrhus* Linnaeus, 1767;
  (b) *Cucujus* Geoffroy in Müller, 1764 and all other uses of the name *Cucujus* prior to *Cucujus* Fabricius, 1775;

   - (c) *Melolontha* Geoffroy in Müller, 1764 and all other uses of the name *Melolontha* prior to *Melolontha* Fabricius, 1775;
   - (d) *Peltis* Geoffroy in Müller, 1764 and all other uses of the name *Peltis* prior to *Peltis* Kugelann, 1792;
   - (e) *Tritoma* Geoffroy in Müller, 1764 and all other uses of the name *Tritoma* prior to *Tritoma* Fabricius, 1775;
- (5) to use its plenary powers to suppress the specific name *cylindricus* Müller, 1776, as published in the binomen *Ptilinus cylindricus*, for the purposes of both the Principle of Priority and the Principle of Homonymy;
- (6) to place on the Official List of Generic Names in Zoology the following names conserved under the plenary powers in (1) and (4) above:
   - (a) *Altica* Geoffroy, 1762 (gender: feminine), type species, by subsequent designation by Latreille (1810), *Chrysomela oleracea* Linnaeus, 1758;
   - (b) *Anthrenus* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Mroczkowski (1968), *Dermestes scrophulariae* Linnaeus, 1758;
   - (c) *Anthribus* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Jordan (1931), *Anthribus fasciatus* Forster, 1770;
   - (d) *Bostrichus* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Latreille (1810), *Dermestes capucinus* Linnaeus, 1758;
   - (e) *Byrrhus* Linnaeus, 1767 (gender: masculine), type species, by subsequent designation by Latreille (1810), *Dermestes pilula* Linnaeus, 1758;
   - (f) *Cerocoma* Geoffroy, 1762 (gender: feminine), type species, by subsequent monotypy (Fabricius, 1775), *Meloe schaefferi* Linnaeus, 1758;
   - (g) *Copris* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Latreille (1810), *Scarabaeus lunaris* Linnaeus, 1758;
   - (h) *Crioceris* Geoffroy, 1762 (emendation of entry on Official List in Opinion 908);
   - (i) *Cryptocephalus* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Latreille (1810), *Chrysomela sericea* Linnaeus, 1758;
   - (j) *Cucujus* Fabricius, 1775 (gender: masculine), type species, by monotypy, *Cucujus depressus* Fabricius, 1775 (a junior subjective synonym of *Meloe cinnabarina* Scopoli, 1763);
   - (k) *Diaperis* Geoffroy, 1762 (gender: feminine), type species, by subsequent monotypy (Müller, 1776), *Chrysomela boleti* Linnaeus, 1758;
   - (l) *Galeruca* Geoffroy, 1762 (gender: feminine), type species, by subsequent designation by Latreille (1810), *Chrysomela tanaceti* Linnaeus, 1758;
   - (m) *Gyrinus* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Latreille (1810), *Dytiscus natator* Linnaeus, 1758;
   - (n) *Hydrophilus* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Latreille (1810), *Dytiscus piceus* Linnaeus, 1758;
   - (o) *Melolontha* Fabricius, 1775 (gender: feminine), type species, by absolute tautonymy, *Scarabaeus melolontha* Linnaeus, 1758;
   - (p) *Notoxus* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Latreille (1810), *Attelabus monoceros* Linnaeus, 1761;
   - (q) *Omalisus* Geoffroy, 1762 (gender: masculine), type species, by subsequent monotypy (Fourcroy, 1785), *Omalisus fontisbellaquaei* Geoffroy in Fourcroy, 1785;

  - (r) *Peltis* Kugelann, 1792 (gender: feminine), type species, by subsequent designation by Hope (1840), *Silpha grossa* Linnaeus, 1758;
  - (s) *Platycerus* Geoffroy, 1762 (gender: masculine), type species, by subsequent designation by Latreille (1810), *Scarabaeus caraboides* Linnaeus, 1758;
  - (t) *Prionus* Geoffroy, 1762 (gender: masculine), type species, by designation under the plenary powers in (2)(b) above, *Cerambyx coriarius* Linnaeus, 1758;
  - (u) *Ptilinus* Geoffroy, 1762 (gender: masculine), type species, by subsequent monotypy (Müller, 1776), *Ptilinus cylindricus* Müller, 1776 (a suppressed senior subjective synonym of *Ptilinus fuscus* Geoffroy in Fourcroy, 1785) (see ruling in (5) above);
  - (v) *Pyrochroa* Geoffroy, 1762 (gender: feminine), type species, by subsequent designation by Westwood [1838], *Cantharis coccinea* Linnaeus, 1761;
  - (w) *Stenocorus* Geoffroy, 1762 (gender: masculine), type species, by designation under the plenary powers in (2)(c) above, *Leptura meridiana* Linnaeus, 1758;
  - (x) *Tritoma* Fabricius, 1775 (gender: feminine), type species, by subsequent designation by Latreille (1810), *Tritoma bipustulata* Fabricius, 1775;
- (7) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names as suppressed in (3) and (4) above:
  - (a) *Byrrhus* Geoffroy in Müller, 1764 and all other uses of the name *Byrrhus* prior to *Byrrhus* Linnaeus, 1767;
  - (b) *Cistela* Schaeffer, 1766;
  - (c) *Cucujus* Geoffroy in Müller, 1764 and all other uses of the name *Cucujus* prior to *Cucujus* Fabricius, 1775;
  - (d) *Melolontha* Geoffroy in Müller, 1764 and all other uses of the name *Melolontha* prior to *Melolontha* Fabricius, 1775;
  - (e) *Peltis* Geoffroy in Müller, 1764 and all other uses of the name *Peltis* prior to *Peltis* Kugelann, 1792;
  - (f) *Pistella* Müller, 1764;
  - (g) *Rhinomacer* Geoffroy in Müller, 1764;
  - (h) *Tritoma* Geoffroy in Müller, 1764 and all other uses of the name *Tritoma* prior to *Tritoma* Fabricius, 1775;
- (8) to amend the entry on the Official Index of Rejected and Invalid Generic Names in Zoology for the name *Dyticus* Müller, 1776 to read *Dyticus* Geoffroy in Müller, 1764;
- (9) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *bipustulata* Fabricius, 1775, as published in the binomen *Tritoma bipustulata* (specific name of the type species of *Tritoma* Fabricius, 1775);
  - (b) *boleti* Linnaeus, 1758, as published in the binomen *Chrysomela boleti* (specific name of the type species of *Diaperis* Geoffroy, 1762);
  - (c) *capucinus* Linnaeus, 1758, as published in the binomen *Dermestes capucinus* (specific name of the type species of *Bostrichus* Geoffroy, 1762);
  - (d) *caraboides* Linnaeus, 1758, as published in the binomen *Scarabaeus caraboides* (specific name of the type species of *Platycerus* Geoffroy, 1762);
  - (e) *cinnabarina* Scopoli, 1763, as published in the binomen *Meloe cinnabarina* (senior subjective synonym of *Cucujus depressus* Fabricius, 1775, the type species of *Cucujus* Fabricius, 1775);

(f) *coccinea* Linnaeus, 1761, as published in the binomen *Cantharis coccinea* (specific name of the type species of *Pyrochroa* Geoffroy, 1762);
(g) *coriarius* Linnaeus, 1758, as published in the binomen *Cerambyx coriarius* (specific name of the type species of *Prionus* Geoffroy, 1762);
(h) *fasciatus* Forster, 1770, as published in the binomen *Anthribus fasciatus* (specific name of the type species of *Anthribus* Geoffroy, 1762);
(i) *fontisbellaquaei* Geoffroy in Fourcroy, 1785, as published in the binomen *Omalisus fontisbellaquaei* (specific name of the type species of *Omalisus* Geoffroy, 1762);
(j) *fuscus* Geoffroy in Fourcroy, 1785, as published in the binomen *Ptilinus fuscus* (first available subjective synonym of *Ptilinus cylindricus* Müller, 1776, the type species of *Ptilinus* Geoffroy, 1762);
(k) *grossa* Linnaeus, 1758, as published in the binomen *Silpha grossa* (specific name of the type species of *Peltis* Kugelann, 1792);
(l) *lunaris* Linnaeus, 1758, as published in the binomen *Scarabaeus lunaris* (specific name of the type species of *Copris* Geoffroy, 1762);
(m) *melolontha* Linnaeus, 1758, as published in the binomen *Scarabaeus melolontha* (specific name of the type species of *Melolontha* Fabricius, 1775);
(n) *meridiana* Linnaeus, 1758, as published in the binomen *Leptura meridiana* (specific name of the type species of *Stenocorus* Geoffroy, 1762);
(o) *monoceros* Linnaeus, 1761, as published in the binomen *Attelabus monoceros* (specific name of the type species of *Notoxus* Geoffroy, 1762);
(p) *natator* Linnaeus, 1758, as published in the binomen *Dytiscus natator* (specific name of the type species of *Gyrinus* Geoffroy, 1762);
(q) *oleracea* Linnaeus, 1758, as published in the binomen *Chrysomela oleracea* (specific name of the type species of *Altica* Geoffroy, 1762);
(r) *piceus* Linnaeus, 1758, as published in the binomen *Dytiscus piceus* (specific name of the type species of *Hydrophilus* Geoffroy, 1762);
(s) *pilula* Linnaeus, 1758, as published in the binomen *Dermestes pilula* (specific name of the type species of *Byrrhus* Linnaeus, 1767);
(t) *schaefferi* Linnaeus, 1758, as published in the binomen *Meloe schaefferi* (specific name of the type species of *Cerocoma* Geoffroy, 1762);
(u) *scrophulariae* Linnaeus, 1758, as published in the binomen *Dermestes scrophulariae* (specific name of the type species of *Anthrenus* Geoffroy, 1762);
(v) *sericea* Linnaeus, 1758, as published in the binomen *Chrysomela sericea* (specific name of the type species of *Cryptocephalus* Geoffroy, 1762);
(w) *tanaceti* Linnaeus, 1758, as published in the binomen *Chrysomela tanaceti* (specific name of the type species of *Galeruca* Geoffroy, 1762);

(10) to amend the entry on the Official List of Specific Names in Zoology for *Chrysomela asparagi* Linnaeus, 1758 to record the authorship of *Crioceris* from Geoffroy, 1762;

(11) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *cylindricus* Müller, 1776, as published in the binomen *Ptilinus cylindricus* and suppressed under the plenary powers in (5) above.

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APPENDIX

On Geoffroy's names in Müller's *Fauna Insectorum Fridrichsdalina* (1764)

H.D. Cameron

Department of Classical Studies, University of Michigan, Ann Arbor, Michigan 48109, U.S.A.

The question has arisen whether O.F. Müller (1764) intended to synonymize E.L. Geoffroy's 1762 generic names under the genera of Linnaeus. The answer is that he clearly did not. A translation of the relevant paragraph of Müller's preface to the reader (1764: ix) and the choice of vocabulary in his comparative table (1764: xi ff.) are sufficient to demonstrate his intentions.

Translation from Müller's Preface (p. ix):

> 'When my book was already in press, *L'Abregé* [sic] *de l'Histoire des Insectes dans les environs de Paris 1762* was announced in the *Novellae Literariae Erlangenses*. Upon reading it through I learned that its celebrated author [Geoffroy] departed substantially from the Linnaean Method in erecting many new genera and in determining their characters; therefore I thought it desirable for [the purposes of] natural science and in order to facilitate the reading of the books of both authors [i.e. Linnaeus and Geoffroy] to arrange [*reducere*] the new genera [i.e. of Geoffroy] with their characters along with the Linnaean genera, and I have placed the [new] genera side by side [with the Linnaean genera] in the schema. [With this scheme] it is easily possible for the reader to refer any insect before him to the genera of either of the two authors, and find the description [in either author] of the insect in question. Enjoy these [things] with me, dear reader, to the glory of the supreme divinity, for the delight of the mind, and for whatsoever usefulness [there is in it].'

The problem lies in the Latin word *reducere* which does not have its classical meaning 'lead back', but rather a late Latin meaning 'to arrange, bring into a certain order or arrangement', or 'to refer to something'. It does not mean 'reduce' in the modern English sense of the word.

Consequently, one must not make the mistake of supposing that Müller is 'synonymizing' in the modern sense of the word used currently in systematics. That is, he is not claiming that the Linnaean names are valid and the Geoffroy names invalid. He is merely arranging the two generic schemes side by side so that the reader may find the applicable description in either author, that is, either Linnaeus or Geoffroy. The adverb *coram*, which means 'present, before' in classical usage, here means 'side by side'.

Müller is not making any judgement about which generic system is correct. He is giving both schemes together as a matter of convenience to the reader.

On page xi of the Preface, he places on the left side of the page the designation *Equitis a Linné*, that is 'of the knight of Linné', the Latin way of saying *von Linné*. Linnaeus had been granted a patent of nobility by Gustavus III of Sweden in 1761. On the right side of the page Müller places *Domini Geofroi*, that is 'of Monsieur Geoffroy'. The two schemes of genera are then marshalled under each rubric in comparison with one another.

The title of this Table in translation reads:

Systematic Classification of Insects
Of von Linné Of Monsieur Geoffroy
A Harmony [*Convenientia*] of Each of the Two Authors

The word *convenientia* means 'harmony, symmetry, agreement'. Müller means that he is bringing the two generic systems 'into harmony' with each other. This language, *convenientia utriusque*, makes it unambiguously clear that Müller is not privileging either scheme, but simply relating them to each other for the reader's practical convenience.

It seems obvious to me that the choice of the term *convenientia* is due to an analogy with a familiar term in the criticism of the New Testament. An 'Evangelical Harmony' or a 'Harmony of the Gospels' is 'an attempt to arrange the several contributions of the four evangelists, so that they shall fall into their right places in a common story'. I take this definition from the *Oxford English Dictionary* (s.v. *harmony* 6).

There is certainly no intention in a Harmony to reject any of the gospel narratives, but only to make clear how they are related to one another. I am confident that Müller had this theological analogy in mind, and it accounts for the choice of the word *convenientia*. And the choice of that word makes clear that Müller had no intention of rejecting Geoffroy's names.

One final question should be cleared up concerning the first words of the paragraph of the Preface translated above, *libello iam impresso* 'the book having already been printed' or better, 'when the book was in press'. This is a puzzling bibliographical point, but I think it can be explained. Geoffroy's *Histoire Abrégée* was published anonymously in two volumes (Paris, 1762) and was re-issued with Geoffroy's name as author in 1764. Since Müller already knows the name of the author, it is apparently the case, then, that it is the 1764 re-issue which came to his notice in the *Novellae Literariae Erlangenses*, when the body of his book had already been printed. But he would have been able to take notice of it in the sheets of his introduction printed later.

Case 2757

Rhinapion Beguin-Billecocq, 1905 (Insecta, Coleoptera): proposed conservation

M.A. Alonso-Zarazaga
Sección de Entomología, Museo Nacional de Ciencias Naturales, J. Gutiérrez Abascal 2, 28006 Madrid, Spain

M. Wanat
Muzeum Przyrodnicze, Uniwersytet Wrocławski, Sienkiewicza 21, 50-335 Wrocław, Poland

Abstract. The purpose of this application is to conserve the name *Rhinapion* Beguin-Billecocq, 1905 for a subgenus of weevils by the suppression of the senior homonym *Rhinapion* Motschulsky. *Rhinapion* Beguin-Billecocq includes species which are seed predators of leguminous plants (wild or cultivated) in sub-Saharan Africa and Madagascar.

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1. In 1866 Motschulsky used the generic name *Rhynapion* (p. 430) in a list of three coleopteran species from Ceylon (Sri Lanka), none of which were described, and the name is therefore a nomen nudum.

2. Later, Motschulsky (1868, p. 86) used the generic name *Rhinapion* (apparently an emendation for the etymologically incorrect *Rhynapion*) in a list of the taxa which he had described, with the former three undescribed species plus two species described by himself in 1860, i.e. *Apion nigricorne* Motschulsky, 1860 and *A. angulosum* Motschulsky, 1860. Therefore *Rhinapion* Motschulsky, 1868 is available under Article 12b(5) of the Code. This name has not been used since and is a junior subjective synonym of *Oxystoma* Duméril, 1806 (see Alonso-Zarazaga, 1991).

3. In 1905 Beguin-Billecocq described a subgenus *Rhinapion* (p. 147) of the genus *Apion* Herbst, 1797 from Madagascar, including three new species: *Apion obliquestriatum*, *A. insigne* and *A. pauxillum*. No type species was designated. This name is a homonym of *Rhinapion* Motschulsky, 1868 and, in accordance with the Code, should not be used.

4. Kissinger (1968, p. 28) designated *Apion pauxillum* Beguin-Billecocq (1905, p. 149) as the type species of *Rhinapion* Beguin-Billecocq, 1905. No type species has been designated for *Rhinapion* Motschulsky, 1868.

5. The name *Rhinapion* Beguin-Billecocq, 1905 has been used by authors dealing with the Madagascan or African APIONIDAE since its description, either as a subgenus of *Apion* Herbst, 1797 or as a subgenus of *Conapium* Motschulsky, 1866 (also spelt *Conapion*). The genus presently includes 11 species but many others await description. The name *Rhinapion* Beguin-Billecocq, 1905 is used by applied entomologists; authors include Beguin-Billecocq (1910, p. 431), Wagner (1910, p. 8; 1912a, p. 24; 1912b, p. 43),

Hustache (1923, p. 89), Burgeon (1938, p. 210), Voss (1959, pp. 53, 64) and Kissinger (1968, pp. 28, 38). A list of three additional references by Voss and a further reference by Wagner have been given to the Commission Secretariat.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Rhinapion* Motschulsky, 1868, and all uses of the name *Rhinapion* prior to that by Beguin-Billecocq (1905), for the purposes of both the Principle of Priority and the Principle of Homonymy;
(2) to place on the Official List of Generic Names in Zoology the name *Rhinapion* Beguin-Billecocq, 1905 (gender: neuter), type species by designation by Kissinger (1968) *Apion pauxillum* Beguin-Billecocq, 1905;
(3) to place on the Official List of Specific Names in Zoology the name *pauxillum* Beguin-Billecocq, 1905, as published in the binomen *Apion pauxillum* (specific name of the type species of *Rhinapion* Beguin-Billecocq, 1905);
(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Rhinapion* Motschulsky, 1868, as suppressed in (1) above.

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Case 2737

Brahmaea Walker, 1855 (Insecta, Lepidoptera): proposed confirmation of *Bombyx certhia* Fabricius, 1793 as the type species

W.A. Nässig
Zoologisches Institut der Universität, Siesmayerstrasse 70, D-6000 Frankfurt, Germany

I.W.B. Nye
Kilronan, The Avenue, South Nutfield, Surrey RH1 5RY, U.K.

Abstract. The purpose of this application is to confirm that the nominal type species of the moth genus *Brahmaea* Walker, 1855 is *Bombyx certhia* Fabricius, 1793. Walker misidentified this species when describing *Brahmaea*, but the genus has been interpreted in the sense of *B. certhia* being the type.

1. The generic name *Brahmaea* Walker (1855 [November 10], p. 1200) was established in a key to genera; it is the type genus of BRAHMAEIDAE Swinhoe (1892, p. 253). There were no included nominal species but Walker (1855 [December 8], p. 1316) subsequently included two species, the first one cited being *Bombyx certhia* Fabricius (1793, p. 412). Butler (1880, p. 188) showed that Walker had misidentified the specimens and for *Brahmaea certhia* (Fabricius) sensu Walker (1855) he established the name *Brahmaea conchifera* Butler, 1880. *B. conchifera* is a junior subjective synonym of *Bombyx wallichii* Gray (1831, p. 39).

2. The first designation of type species for *Brahmaea* Walker, 1855 was by Kirby (1892, p. 724) who cited *B. conchifera* Butler, 1880 and placed '*B. Certhia*, Walk. l[oc]. c[it]. p. 1316 n. 1 (1855)' in its synonymy. This designation is invalid since *B. conchifera* was not an originally included nominal species and '*B. certhia* Walker' is a misidentification.

3. Hampson ([1893], p. 29) designated '*B. certhia* Fabr., from China' as type species; this is the true *B. certhia* Fabricius, 1793. An investigation in 1988 by Miss P. Gilbert in the library of The Natural History Museum, London, revealed that Hampson's book was not received by the library before 5 April 1893, and 1893 may be taken as the year of publication.

4. Until 1930, *B. certhia* and *B. wallichii* (i.e. *B. conchifera*) were included in *Brahmaea*, without subgenera. Then *Brahmophthalma* Mell (1930, p. 346) (type species *Bombyx wallichii* Gray, 1831, by designation by Bryk (1949, p. 20)), was established to denote a subgenus of *Brahmaea*. Mell included the true *certhia* Fabricius in *Brahmaea* (*Brahmaea*).

5. Since 1930, virtually all authors followed Mell's concept that the type species of *Brahmaea* was the true *certhia* Fabricius, i.e. they have followed Hampson's [1893] designation (para. 3). Bryk (1949, pp. 20–26) was aware of the misidentification of the

type species of *Brahmaea*, but expressly followed Mell's concept to retain stability. Bryk gave *Brahmophthalma* Mell full generic status and established two more genera, *Brahmaeops* and *Brahmidia*, for species included in *Brahmophthalma* Mell. This act of splitting was accepted by Sauter (1967, pp. 125–129) when describing a new genus for the only European species of the family, and some of the most recent authors (e.g. Barlow, 1982) followed this. In contrast, Inoue et al. (1982) synonymized Mell's and Bryk's genera with *Brahmaea* Walker, but this does not, in our opinion, reflect the relationships within the group sufficiently.

6. Fletcher & Nye (1982, p. 25) cited *B. conchifera* as the type species of *Brahmaea* Walker, 1855, together with the relevant bibliographic information concerning the misidentification of *certhia* by Walker. Fletcher & Nye stated that this case of a misidentified type-species should be referred to the Commission.

7. Sauter (1987, pp. 262–271), in the only systematic paper on the BRAHMAEIDAE published since Fletcher & Nye (1982), followed the generic concepts of Mell and of Bryk by accepting the true *certhia* Fabricius as type species of *Brahmaea*. Sauter was aware of the problems and again wanted to retain stability of use. In a forthcoming revision of the family by Nässig it is intended to follow Mell's concept (see also Nässig & Paukstadt, 1990).

8. In order to obtain stability in the usage of the nominal genus *Brahmaea*, and following Article 70b of the Code, the International Commission on Zoological Nomenclature is asked:

(1) to confirm the designation by Hampson ([1893]) of *Bombyx certhia* Fabricius, 1793, as the type species of *Brahmaea* Walker, 1855;

(2) to place on the Official List of Generic Names in Zoology the name *Brahmaea* Walker, 1855 (gender: feminine), type species by designation by Hampson ([1893]) *Bombyx certhia* Fabricius, 1793 as confirmed in (1) above;

(3) to place on the Official List of Specific Names in Zoology the name *certhia* Fabricius, 1793, as published in the binomen *Bombyx certhia* (specific name of the type species of *Brahmaea* Walker, 1855).

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Comments on the proposed conservation of *Helicarion* Férussac, 1821 (Mollusca, Gastropoda), and proposed designation of *Helixarion cuvieri* Férussac, 1821 as the type species

(Case 2739; see BZN **47**: 258–262)

(1) Gary Rosenberg
The Academy of Natural Sciences, Philadelphia, Pennsylvania 19103, U.S.A.

Several months before the publication of Smith & Kershaw's application, Rosenberg, Bogan & Spamer (1990, p. 300) used the spelling HELIXARIONIDAE, noting that HELICARIONIDAE was based on the unjustified emendation of *Helixarion* to *Helicarion* by Férussac (July 1821). We did this by strict application of the Code, as the question of the spelling did not seem important enough to refer to the Commission. Smith & Kershaw have now raised the question of type species of the genus, and in this context it is appropriate to ask the Commission to decide on spelling also.

Article 32 (sections b, c(ii) and d) of the Code allows authors to subsequently correct typographical and printer's errors in the spelling of names (justified emendations), but *Helicarion* is not such a case. Smith & Kershaw (para. 2) note that the spelling *Helixarion* is used seven times in livraison 9 of Férussac's work. This would seem an intentional spelling; Férussac's emendation to *Helicarion* probably reflects a subsequent realization that he had incorrectly latinized the combination of the generic names *Helix* and *Arion*. Thus, I do not consider that Férussac's intentions give grounds for conserving *Helicarion*.

Historical usage does support conserving *Helicarion* and HELICARIONIDAE, but it is clear that these refer to the same taxa as *Helixarion* and HELIXARIONIDAE, so using strict priority would also stabilize the nomenclature. Certainly the generic and family-group names should be spelled consistently, to avoid usages such as that of Abbott (1989, p. 224) who cites HELIXARIONIDAE as a synonym of HELICARIONIDAE, but uses *Helixarion* as valid.

I support designation of *Helixarion cuvieri* Férussac, 1821 as the type species of the genus, as this action will support nomenclatural stability.

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(2) Brian J. Smith
5 Talinga Crescent, Shepparton, Victoria 3630, Australia

Ron C. Kershaw
45 West Tamar Road, Launceston 7250, Tasmania 7250, Australia

The comment by Rosenberg (above) clearly reveals that there is a considerable level of confusion concerning the correct usage of the genus-group name *Helicarion* or *Helixarion* and the family-group name HELICARIONIDAE or HELIXARIONIDAE. Many malacologists referring to these taxa have felt obliged to make a decision based on a personal interpretation of the Code, which may have resulted in giving precedence to strict priority or to the need for long term stability. We gave more weight to the latter alternative in our solution to this problem. Rosenberg's comment serves to emphasise the necessity for the use of the plenary powers. We do not agree that the spelling of this name is unimportant; it has caused confusion for a very long time. We cannot see that making a mistake seven times makes it less of a mistake. The matter of the spelling is not the only consideration, as Rosenberg has noted. It is precisely in cases such as that set out in our submission that a Commission decision is most appropriate. Rosenberg does not argue against the submission as such. We welcome his stated support.

Comment on the proposed precedence of POLYGYRIDAE Pilsbry, 1895 over MESODONTIDAE Tryon, 1866 (Mollusca, Gastropoda)

(Case 2642; see BZN **46**: 94–96; **47**: 204–205)

David Heppell
Department of Natural History, National Museums of Scotland, Chambers Street, Edinburgh EH1 1JF, U.K.

The applicant correctly states (para. 2) that the family-group name POLYGYRIDAE was first introduced by Pilsbry (as POLYGYRINAE) in the *Manual of Conchology* (series 2, vol. 9, p. xxxii). Pilsbry stated that he had abstained from assigning subfamily rank to the various 'natural tribes of Helices' that he proceeded to define, but that 'if they be considered subfamilies, they may bear the names 1 Polygyrinae;...'. A name proposed conditionally in this way is available under Article 15 of the Code. The applicant cites 1894 for the date of the name and notes (para. 6) 'Polygyrinae, 1895 [sic]' for Baker's (1956) citation. In fact, vol. 9 of the *Manual of Conchology* (= HELICIDAE vol. 7) was published in five parts (parts 33–36 and 33a) between November 1893 and February 1895 (see Clench & Turner, 1962, p. 173). Pages i–xlviii comprise part 33a, published on 2 February 1895 and, therefore, POLYGYRIDAE dates from then.

The applicant (para. 9) requests the addition of *Polygyra* Say, 1818 to the Official List of Generic Names with the type species *P. septemvolva* Say, 1818, by subsequent designation by Herrmannsen (1847). Herrmannsen's designation (vol. 2, p. 317) dates from 7 December 1847. Gray (November 1847, p. 173) designated *Polygyra auriculata* Say, 1818 as the type species of *Polygyra* Say, 1818, and this designation was accepted by Rehder (1936, p. 103) as valid. Gray's prior designation means that the name *Polygyra* is formally a senior objective synonym of *Daedalochila* Beck, 1837 (type species *Polygyra auriculata* Say, 1818, by subsequent designation by Herrmannsen, vol. 1, p. 369, April 1847). The generic name which would replace *Polygyra* sensu *septemvolva* is debatable. Pilsbry (1930, p. 312) designated *Polygyra septemvolva* as the type of *Ulostoma* Albers, 1850; he also designated (1930, p. 312) the same species as the type of *Cyclodoma* Swainson, 1840, but this was not in accord with Swainson's concept of the genus and the validity of Pilsbry's designation is uncertain (Rehder, 1936, p. 103).

Pilsbry (1938, p. 24) argued that Gray's designation was invalid because, as well as citing *Polygyra auriculata* as the type of *Polygyra* Say, 1818, he also cited *Helix septemvalva* [sic] as the type of '*Polygyra* sp. Say, Beck', the latter being listed among the synonyms of *Polygyra* Say, 1818. Pilsbry regarded this as the simultaneous designation of two different type species for the same genus, although there seems to be no doubt that Gray was treating the two taxa as distinct (though homonymous). Gray's method of indicating objective or subjective synonymy of genera was unambiguously stated in the introduction to his list (1847, p. 129): 'The method I have followed is to observe the first name given to the genus and the type on which it was founded, and then to accumulate the synonyma around the genus. Where a succeeding author has referred to a different species as the type of the genus, I have given the name in a new line, as from some future period that type may be proved really to belong to a different genus; and when any succeeding author has established a genus on any species which appears to belong to the before-established genus, it is in a similar manner placed under the proper head, with the synonyma belonging to that type. The type on which the genus or subgenus, as it may hereafter prove, was founded, is also given, so that if such type at some future period prove to be distinct from the one under which I have placed it, the synonyma of the genus will be at once seen. But the names which occur under each head are, according to my present views, to be regarded as synonyma of the genus under which they are arranged'.

Acceptance of Gray's (1847) designation of *Polygyra auriculata* Say, 1818 as the type species of *Polygyra* Say, 1818 would be contrary to established usage and nomenclatural stability and it is proposed that this designation should be set aside. The family-group name POLYGYRIDAE Pilsbry should be placed on the Official List with the date 1895.

In addition to the proposals on BZN **46**: 95, the International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all fixations of type species for the nominal genus *Polygyra* Say, 1818 prior to the designation by Herrmannsen (1847) of *Polygyra septemvolva* Say, 1818.

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Comment on the proposed conservation of *Proptera* Rafinesque, 1819 (Mollusca, Bivalvia)

(Case 2558; see BZN **47**: 19–21, 205–207)

Douglas G. Smith
Museum of Zoology, University of Massachusetts, 348 Morrill Science Center, Amherst, MA 01003, U.S.A.

I write in support of the petition requesting the Commission to place on the Official Index of Rejected and Invalid Names the name *Potamilus* Rafinesque, 1818, as advocated by M.E. Gordon. The wide use of *Proptera* in the literature on unionid mollusks combined with the obscure history of *Potamilus* makes such a ruling consistent with the Commisssion's trend to discourage the rejuvenation of long forgotten, poorly defined names and to conserve names well established in the literature. The early history of unionid taxonomy, especially in North America, is characterized by imprecise descriptions and definitions, and duplicity. Though many names long in use are sometimes no less obscure than others, it is because of the enormous literature that has developed on this group that it seems most beneficial and constructive to conserve those which have become most established.

Comments on the proposed conservation of *Bruchus* Linnaeus, 1767, *Ptinus* Linnaeus, 1767 and *Mylabris* Fabricius, 1775 (Insecta, Coleoptera)

(Case 2618; see BZN **45**: 194–196)

(1) I.M. Kerzhner & A.G. Kirejtshuk
Zoological Institute, Academy of Sciences, Leningrad 199034, U.S.S.R.

We support Borowiec's proposals but some corrections should be made to the application. The correct authorship of *Bruchus* and *Mylabris*, sensu Geoffroy (1762), is not 'Müller, 1764' but Geoffroy in Müller (1764) (cf. para. 2 of the application; see also comments by Kerzhner in BZN **38**: 6 and **46**: 42). The more important correction, however, is that Pierce (1916, p. 463) designated *Laria salicis* Scopoli, 1763 (p. 22) as the type species of *Laria* Scopoli, 1763 (p. 21). Pierce misquoted Bedel (1901) as having previously designated *salicis* as the type; however, Pierce's designation is valid (Article 69a(iv) of the Code). As mentioned in the application (para. 3), *salicis* Scopoli, 1763 was listed by Linnaeus (1767, p. 604) as a synonym of *Bruchus pisi* (Linnaeus, 1758), which was followed by Schrank (1781, p. 100). *Laria* is therefore a senior subjective synonym of *Bruchus* Linnaeus, 1767, not of *Pria* Stephens, 1829 (p. 7) in the NITIDULIDAE, as Bridwell's (1932) designation implied (para. 3 of the application). *Pria* is a large (more than 80 nominal species) and widely distributed (nearly all the Old World) genus (type species *Silpha truncatella* Marsham, 1802 (p. 123) by monotypy, a junior subjective synonym of *Laria dulcamarae* Scopoli, 1763 (see Erichson, 1843, p. 308; Cooper, 1982, p. 328)). *Laria* and LARIIDAE, rather than *Bruchus* and BRUCHIDAE, were used for the seed beetles by some authors: Bedel (1901, p.343), Ganglbauer (1906) and Reitter (1912, pp. 218–220), but in recent times *Laria* has very rarely appeared as a valid name (the only exceptions are Kloet & Hincks (1945, p. 185) and Silfverberg (1979, p. 42); in both *Laria* was adopted as the senior synonym of *Pria*). In order to preserve usage of *Bruchus* Linnaeus, 1767 we propose that suppression of *Laria* Scopoli, 1763 should be added to the proposals on BZN **45**: 195. Suppression of *Laria* (to conserve *Pria*) has previously been suggested by Cooper (1982, p. 329).

The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Laria* Scopoli, 1763 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Laria* Scopoli, 1763, as suppressed in (1) above.

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(2) Anthea Gentry

Secretariat, International Commission on Zoological Nomenclature

Geoffroy (1762, p. 266) described three species in *Mylabris* but the names were non-binominal. Müller (1764) did not include species in the genus. The next use of *Mylabris* was by Geoffroy in Fourcroy (1785, p. 112) and three nominal species were included: *crucigera*, *fusca* and *sericea*. Bedel (1901, p. 358) included *Mylabris crucigera* Fourcroy, 1785 in the synonymy of *Bruchus pisi* Linnaeus, 1767. As noted in Borowiec's application (para. 5), Bridwell (1932) designated *Bruchus pisi* Linnaeus, 1767 (the senior synonym) as the type species of *Mylabris* sensu Geoffroy. *Mylabris* sensu Geoffroy (1762) is thus a senior subjective synonym of *Bruchus* Linnaeus, 1767, as stated in para. 5 of Borowiec's application (and not 'objective' as stated in para. 2).

The family BRUCHIDAE includes over 900 species, in which the larvae mostly live in seeds of Leguminosae causing great damage to stored products. They have been carried from country to country in cargoes and now occur almost world wide. As stated by Borowiec (para. 2), the name *Bruchus* Linnaeus is in wide usage and has appeared in a large number of agricultural, food-storage and food-processing papers, as well as taxonomic works, as is demonstrated by the following representative list: Arnett (1968, pp. 953–955, 957), Alfieri (1976, pp. 238–242), Arora (1977, pp. 18–22), Gressitt & Hornabrook (1977, p. 58), Silfverberg (1979, p. 61) Carne et al. (1980, p. 9), M.A.F.F. (1980) and Özar & Genç (1987).

Additional references

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Ministry of Agriculture, Fisheries & Food. 1980. *Pea and bean seed beetles.* Leaflet No. 126. 5 pp. M.A.F.F. (Publications), Pinner, U.K.

Özar, A.I. & Genç, H. 1987. Ege Bölgesi'nde depolanan yemeklik baklagillerde bulunan Bruchidae (Coleoptera) türlerinin bulasmave zarar oranlari üzerinde çalismalar. [Study on the rates of infestation and damage by species of Bruchidae (Coleoptera) damaging stored food legumes in the Aegean region). Pp. 341–350 *in* Türikye, I. *Entomoloji Kongresi Bildirileri, Ekim 13–16 1987, Ege Univeritesi, Bornova, Izmir.* Zirai Mücadele Arasturma Enstitüsü, Bornova-Izmir. [In Turkish.]

(3) F.C. Thompson

Systematic Entomology Laboratory, U.S.D.A., c/o U.S. National Museum, Washington, D.C. 20560, U.S.A.

1. This case does not deal with two Linnaean and one Fabrician names, but with three Geoffroy names. The proposal as written does not properly address nor solve the problems of these names. The proper actions required are listed below.

2. The core isssue is whose names are these? And this rests on how one separates subsequent usage from independent creation of homonymous names. What distinguishes two identical available names is the intent of their creators, that is, did different authors independently create the names and make them available? When authors merely re-use a name already created, whether they may misspell or misapply it, their action has no bearing on nomenclature.

3. The proposal of Borowiec is based on the premise that the subsequent use of Geoffroy names by Linnaeus (and Fabricius) and Müller are independent creations (two different nomenclaturally available names). So, Borowiec requests the suppression of the Müller name and 'all other uses of this [= Müller's!] name...'. This argument, hence, assumes that each author who independently used a Geoffroy name therefore re-created it. Following this argument then requires that *Bruchus* of other early authors also should be suppressed. I have not carefully checked all the early literature, but at least four different authors independently used Geoffroy names.

4. The proper way to solve the problem of these Geoffroy names is the way the Commission suggested years ago (Opinion 228): validate the names as Geoffroy names from 1762 with whatever type species the specialists recommend to insure the current zoological interpretation of the names. Hence, Borowiec's proposals should be replaced as outlined below. By doing this, the chain reaction of subsequent usage becoming independent proposals is eliminated.

5. While the situation is not exactly as simple as the above solution suggests, that solution is the cleanest way to eliminate the problem of subsequent usage. The name *Bruchus* first appeared in zoological literature (sensu 1758 and later) in the synonymy of *Dermestes pisorum* Linnaeus, 1758 (p. 356), where Linnaeus cited an earlier use by Kalm (1756). Geoffroy spelt *Ptinus* as *Ptilinus*, as did most subsequent workers.

6. The problem of Geoffroy names was only partially addressed by the original Opinion 228. Geoffroy (1762) used binary, not binominal nomenclature. Hence, the genus-group names first proposed therein were not available from this work. However, the Commission, recognizing that these genus-group names were widely used by earlier workers and therefore would be available from subsequent works, requested that specialists submit proposals to fix the usage of these names.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Bruchus* Geoffroy, 1762 (gender: masculine), type species by designation by Latreille (1810) *Bruchus pisi* 'Fab.' (i.e. Linnaeus, 1767 = *Dermestes pisorum* Linnaeus, 1758);
  (b) *Ptinus* Geoffroy, 1762 (gender: masculine), type species by designation by Latreille (1810) *Ptinus fur* 'Fab.' (= *Cerambyx fur* Linnaeus, 1758);
  (c) *Mylabris* Geoffroy, 1762 (gender: feminine), type species by designation by Latreille (1810) *Mylabris cichorii* 'Fab.' (= *Meloe cichorii* Linnaeus, 1758);
(2) to place on the Official List of Specific Names in Zoology the following names:
  (a) *pisorum* Linnaeus, 1758, as published in the binomen *Dermestes pisorum* (valid specific name of the type species of *Bruchus* Geoffroy, 1762);
  (b) *fur* Linnaeus, 1758, as published in the binomen *Cerambyx fur* (specific name of the type species of *Ptinus* Geoffroy, 1762);
  (c) *cichorii* Linnaeus, 1758, as published in the binomen *Meloe cichorii* (specific name of the type species of *Mylabris* Geoffroy, 1762);
(3) to place on the Official List of Family-Group Names in Zoology the following names:
  (a) BRUCHIDAE Latreille, 1802 (type genus *Bruchus* Geoffroy, 1762);
  (b) PTINIDAE Latreille, 1802 (type genus *Ptinus* Geoffroy, 1762);
(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Ptilinus* Geoffroy, 1762, an incorrect original spelling of *Ptinus* Geoffroy, 1762.

(4) P.K. Tubbs
Executive Secretary, International Commission on Zoological Nomenclature

I should like to make some observations about the proposals in para. 7 of Dr Thompson's above comment, in the order in which they appear.

(1)(a). *Bruchus* Geoffroy, 1762 (p. 163) had *Cerambyx fur* Linnaeus, 1758 as the only (available) included species. This species was included in *Ptinus* Linnaeus, 1767 (p. 565), and was designated (as '*Ptinus fur* Fab.') as the type species of that genus by Latreille (1810); one could not therefore list *Dermestes pisorum* as the type species of '*Bruchus* Geoffroy'. *Bruchus* Geoffroy, 1762 and *Bruchus* Linnaeus, 1767 are homonyms, i.e. the same name for different taxa. As pointed out by Borowiec (BZN **45**: 194, paras. 1 and 4), *Bruchus* Linnaeus, 1767 (type species *B. pisi* = *Dermestes pisorum* by designation by Latreille (1810)) is the type genus of BRUCHIDAE Latreille, 1802, whereas *Cerambyx fur* (the type species of *Ptinus* Linnaeus or *Bruchus* sensu Geoffroy) is in the PTINIDAE Latreille, 1802.

(1)(b). There is no such name as *Ptinus* Geoffroy, 1762. The name *Ptilinus* appears on p. 64 of Geoffroy (1762). This is not, as suggested by Thompson, an 'incorrect original spelling' of *Ptinus* sensu Linnaeus, 1767, but is an entirely different nominal genus which is considered in detail by Kerzhner (BZN **48**: 123). *Ptilinus* is placed in the family ANOBIIDAE.

(1)(c). As pointed out by Borowiec (BZN **45**: 194, para. 4) and Gentry in her comment above, *Mylabris* sensu Geoffroy (1762) is a senior synonym of *Bruchus* Linnaeus, 1767, whereas *Mylabris* Fabricius, 1775 (type species *Meloe cichorii* Linnaeus, 1758 by Latreille's (1810) designation) is in the MELOIDAE. It would be taxonomically confusing to attribute the meloid (oil beetle) generic name to Geoffroy.

(2) and (3). Drawbacks to these proposals by Thompson are implicit in the above.

(4). As mentioned above, *Ptilinus* Geoffroy, 1762 is not an incorrect spelling of the name *Ptinus*. The conservation of the names *Bruchus* Linnaeus, 1767, *Ptinus* Linnaeus, 1767 and *Mylabris* Fabricius, 1775, threatened by senior synonyms and/or homonyms which first appeared in Geoffroy (1762), has been proposed by Borowiec (BZN **45**: 194–196); this course has been supported by Kerzhner (BZN **48**: 107–134) and by Kerzhner & Kirejtshuk in their comment above. Dr Borowiec's objective of conserving long-established usage can be achieved, and protracted discussion of the first available authorship of the names *Bruchus* and *Mylabris* in another taxonomic sense be avoided, by substituting the following for proposals (1) and (5) on BZN **45**: 195.

The International Commission on Zoological Nomenclature is asked:

(1) to use its plenary powers to suppress the following generic names for the purposes of both the Principle of Priority and the Principle of Homonymy:
  (a) *Bruchus* Geoffroy in Müller, 1764 and all uses of the name *Bruchus* prior to the publication of *Bruchus* Linnaeus, 1767;
  (b) *Mylabris* Geoffroy in Müller, 1764 and all uses of the name *Mylabris* prior to the publication of*Mylabris* Fabricius, 1775;

(5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
  (a) *Bruchus* Geoffroy in Müller, 1764, as suppressed in (1)(a) above;
  (b) *Mylabris* Geoffroy in Müller, 1764, as suppressed in (1)(b) above.

Comments on the need for stability in fish family-group names

(See BZN **47**: 97–100, 138)

(1) J.S. Nelson
Department of Zoology, Faculty of Science, University of Alberta, Edmonton, Canada T6G 2E9

I fully agree with Alwyne Wheeler's comments. He made a strong case and presented it well.

In preparing my new edition (1984) of *Fishes of the world* it was not originally my intention to follow Steyskal (1980) but, seeing in the immediately preceding few years certain colleagues following his recommendations, I reluctantly (and regrettably) accepted most of his changes. I wrote a paragraph on my reluctance and a listing of those changes not accepted (1984, Preface, p. viii).

I consider that Wheeler has done a valuable service in presenting his views.

Additional reference

Nelson, J.S. 1984. *Fishes of the world*, Ed. 2. xv, 523 pp. Wiley & Sons, New York.

(2) P.J. Miller
Department of Zoology, The University, Bristol BS8 1UG, England, U.K.

I should like to express my strong support for Alwyne Wheeler's views on this matter. The situation described by Wheeler, resulting from the strict application of Latin grammar by Steyskal (1980), is absolutely ridiculous, and quite out of keeping with the Code's main aim of stability in nomenclature. There should be a blanket decision by the Commission, rejecting all the changes made by Steyskal.

Comment on the proposed precedence of HOMALOPTERIDAE Bleeker, 1859 over BALITORIDAE Swainson, 1839 (Osteichthyes, Cypriniformes)

(Case 2703; see BZN **47**: 277–279)

Peter K.L. Ng & Kelvin K.P. Lim
Department of Zoology, National University of Singapore, Lower Kent Ridge Road, Singapore 0511

We do not agree with Hieronimus's proposal to give HOMALOPTERIDAE Bleeker, 1859 precedence over BALITORIDAE Swainson, 1839. We do not believe that changing the name from HOMALOPTERIDAE to BALITORIDAE will cause any confusion among scientists and seriously doubt its impact in popular circles.

Hieronimus (para. 3) states that 'Kottelat (1988, p. 489) himself admits that the replacement of HOMALOPTERIDAE by BALITORIDAE creates additional confusion in the suborder Cobitoidei. I cannot follow Kottelat in his opinion that an immediate introduction of the family-group name BALITORIDAE, which had been overlooked for about 150 years, would help to create a stable nomenclature'. This is erroneous and misleading. Kottelat actually wrote: 'Considering recent and expected changes in systematics and nomenclature in Cobitoidei... replacement of HOMALOPTERIDAE with BALITORIDAE should not create much additional confusion. Conservation of HOMALOPTERIDAE would be possible only by use of the plenary powers by the International Commission on Zoological Nomenclature. This would require a long procedure and thus, immediate introduction of the valid name better helps to create a stable nomenclature'. Kottelat's rationale behind not applying to the Commission was precisely to avoid the nomenclatural problems the family name of the torrent loaches now faces: whether it is to be BALITORIDAE according to the Principle of Priority, or HOMALOPTERIDAE following Article 79. Hieronimus appears to have misunderstood Kottelat's action and a problem faced by all taxonomists engaged in revisionary studies. If the intention is nomenclatural stability, an application to conserve HOMALOPTERIDAE, if indeed the name is so well acccepted, should have been made much earlier, not some two years after the publication of Kottelat's 1988 paper. [*Editorial note*: the receipt of Herr Hieronimus's application was announced in March 1989 (BZN **46**: 2)].

Hieronimus (BZN **47**: 277, para. 5) refers to the application by Kottelat (BZN **43**: 360–362) to settle the type species of *Cobitis* Linnaeus, 1758, the type genus of COBITIDAE. That application was necessary to keep the name COBITIDAE (one of the most widely used family names in ichthyology) as currently understood, and was approved in Opinion 1500 (BZN **45**: 178). Its failure would have affected the names and status of four family or subfamily groups (COBITIDAE, NEMACHEILINAE, ACANTHOPSIDAE and HOMALOPTERIDAE) and three genera (*Cobitis*, *Nemacheilus* and *Acanthophthalmus*). The situation for HOMALOPTERIDAE and BALITORIDAE is not comparable, since it does not have wide implications for other names.

Almost all references to the family HOMALOPTERIDAE have been taxonomic. In recent years, however, a growing number of references to the name have been by aquarists. For example, in the 12 years between 1977 and 1989, *Zoological Record* lists only 41 papers using the name HOMALOPTERIDAE; 34 of these are biological, almost all of which are taxonomic (five by Kottelat and his colleagues), and two are ecological. The remaining seven are from aquarium journals. These figures exclude a large number of popular aquarium books and magazines which have referred to this family. These fishes have not been the subject of experimental research. From this it is clear that the name HOMALOPTERIDAE lacks the general scientific usage Hieronimus implies.

Considering the current state of Southeast Asian ichthyology, we know the taxonomic problems mentioned by Kottelat are very real. Roberts (1989, p. 82) commented that the 'higher classification of the HOMALOPTERIDAE is in an unsatisfactory state'. The systematics of the family is still very unstable (see also Sawada, 1982) and many taxonomic changes can be expected in coming years.

As scientists working in the region where torrent loaches are common, and frequent references to these fish are made in our studies, we feel strongly that the Principle of Priority should be strictly adhered to unless the reasons behind invoking Article 79 are extremely strong. Otherwise, revisionary fish taxonomy will be seriously held up. Each time a change in name based on the Principle of Priority is proposed, applications will be made to the Commission to change it back on the grounds of 'familiarity'. Every adoption of a name will eventually have to wait for Commission deliberation and validation. This is clearly a most unsatisfactory state of affairs. The amount of confusion can only escalate. We have used BALITORIDAE and have recommended this name to our colleagues in scientific and popular publications since 1988 (see, for example, Lim et. al., 1990a, 1990b; Lim & Ng, 1990; Ng, 1990a, 1990b; Ng & Lim, 1990; Munro, 1990), and have faced no problems or criticisms whatsoever.

Thus, there is no general and widespread scientific usage of the name HOMALOPTERIDAE, and BALITORIDAE has been accepted in recent years. We hope the Commission will rule against the present proposal as it appears to be nothing more than an attempt to keep a familiar aquarium name.

Additional references

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Sawada, Y. 1982. Phylogeny and zoogeography of the superfamily Cobitoidea (Cyprinoidei, Cypriniformes). *Memoirs of the Faculty of Fisheries, Hokkaido University,* **28**(2): 65–223.

Comments on the proposed conservation of the specific name of *Rivulus marmoratus* Poey, 1880 (Osteichthyes, Cyprinodontiformes)

(Case 2722; see BZN **47**: 191–194)

(1) Lothar Seegers

c/o Zoologisches Forschungsinstitut und Museum A. Koenig, Adenauer Allee 150–164, D-5300 Bonn 1, Germany

Lazara & Smith agree with my work (1984) that *Rivulus ocellatus* Hensel, 1868 and *R. marmoratus* Poey, 1880 are likely to be conspecific (para. 4 of their application). However, the arguments for suppressing the name *ocellatus* in favour of *marmoratus* are not as simple as they suggest. There is a type specimen for *ocellatus* but there are no types for *marmoratus*, according to Lazara & Smith (para. 1). As they say, the specimens identified by Rivas (1945) as the types of *marmoratus* are labelled *R. cylindraceus* Poey, 1861, a species with which *marmoratus* was considered synonymous (see below). In my 1984 paper I accepted that Rivas had traced Poey's original specimens; I was not able to have these specimens on loan when preparing my publication. Without types there is uncertainty about the true (original) identity of *marmoratus* Poey, 1880 and it is incorrect to say that 'this does not affect the case'. Moreover, there is no exact type locality for *marmoratus*, Poey (1880) having described the locality as 'Cuba, if they do not exist in the United States of America'.

Lazara & Smith state (para. 3) that *marmoratus* 'is the only name applied to the species in the experimental and genetic literature prior to Seegers, 1984'. However, *marmoratus* is not the only name that has been used in general biological literature; the authors failed to mention that until Rivas's publication (1945) *marmoratus* was placed in the synonymy of *cylindraceus* by nearly all ichthyologists (see, for example, Garman, 1895; Regan, 1912; Myers, 1927; Jordan, Evermann & Clark, 1930). In my list of synonymies (Seegers, 1984, pp. 295–297) I commented on most publications of the name *marmoratus*, and there is also an annotated list in Rivas (1945, p. 96). It is only since the publications of Rivas (1945), followed by Harrington & Rivas (1958), that *marmoratus* has been used as the name for the species and there has not been '109 years of extensive usage of the name', as stated by Lazara & Smith (para. 7). Therefore, in 1984 I did not upset 'a long accepted name in its accustomed meaning' through the introduction of a senior name. By 1919, Metzelaar (p. 24), followed by Hoedeman (1959, pp. 49, 52), was tentatively thinking that *marmoratus* was conspecific with *ocellatus*.

Lazara & Smith state (para. 5) that in 1984 'Seegers (p. 304) actually stated that the trinomen [*R. ocellatus marmoratus*] could only be used if subspecies were found in the future. No one has suggested that differences exist to justify use of subspecific names'. This is not so; a subspecies, *R. marmoratus bonairensis* Hoedeman, 1958 from Pos di Pepe, Bonaire, has been described (cited by me (1984, p. 304) as *R. ocellatus bonairensis*). To my knowledge no author has accorded *bonairensis* specific status and the subspecies still stands (although I have doubts about its validity). If this Antilles population, which is situated between the most northerly and the most southerly populations, deserves subspecific rank, then it is likely that the most northerly population is subspecifically distinct from the southerly, although research to clarify the situation still remains to be done. If the populations are indeed distinct the name *R. ocellatus marmoratus* is available for the Florida population, but there would be no name available for a southern (Brazilian) subspecies if the name *ocellatus* is suppressed.

For the reasons I have stated I do not support the application by Lazara & Smith to conserve the name *marmoratus* by suppressing the senior name *ocellatus*. Although I have no particularly strong feelings on the matter I believe that *ocellatus* should be retained as the valid name for the species.

Additional references

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(2) Kenneth J. Lazara
Department of Mathematics and Science, U.S. Merchant Marine Academy, Kings Point, New York 11024, U.S.A.

Michael L. Smith
American Museum of Natural History, Central Park West at 79th Street, New York, N.Y. 10024, U.S.A.

We disagree with Seegers' comment (above) for a number of reasons and believe that our application for the suppression of the name *Rivulus ocellatus* Hensel, 1868 for the purposes of the Principle of Priority should stand.

We judge that the loss of Poey's types does not affect the case because there is no controversy about the identity of *Rivulus marmoratus*. Poey's (1880) original description is fully adequate to distinguish the species from all others, and more than 100 authors who have referred to the species, including Seegers (1984), agree as to which taxon bears the name *marmoratus* (references held by the Commission Secretariat).

No subspecies are recognized in the literature. Although *bonairensis* Hoedeman, 1958 was described as a subspecies of *marmoratus* and recognized as such on one occasion (Taphorn, 1980), it cannot be distinguished by any feature and was synonymized by Seegers (1984, pp. 295–296) when he included it in *marmoratus* as a synonym of *ocellatus*. The latter two taxa cannot be distinguished from one another, either as species or subspecies, which is why Seegers (1984) regarded them as conspecific. Given the systematic status of these nominal taxa in the literature, the failure of our application would mean that *marmoratus* would be known as *ocellatus*, and would not be a subspecies of *ocellatus*. Our own examination of additional material from Brazil shows that it is indistinguishable from *marmoratus* from Florida and Cuba.

Rivulus marmoratus was treated as a synonym of *R. cylindraceus* in a total of four papers (cited by Seegers in his comment, para. 2), not by 'nearly all ichthyologists'. During the same period (that is, prior to Rivas, 1945) it was treated as a distinct species by Jordan (1887), Jordan & Evermann (1896), Nichols (1914) and Myers (1925). In 100 papers covering more than a century (1880–1984), all but four papers referred to the species as *marmoratus*. Subsequent to Seegers (1984), 74% of papers continued to use that name. This is the straight-forward issue of the application: that the name has been used overwhelmingly for a long period of time, and that most of its users are non-systematists who are better served by stability in the biological literature than by priority of an obscure name. The petition is in accord with recent actions of the Commission which are aimed at promoting stability of names.

Additional references

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Myers, G.S. 1925. Results of some recent studies on American killifishes. *The Fish Culturist*, **4**(8): 370–371.

Nichols, J.T. 1914. *Gobiosoma longum* and *Rivulus heyei*, new fishes from the West Indian fauna. *Bulletin of the American Museum of Natural History*, **33**: 143–144.

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Comments on the suppression of *Epicrium* Wagler, 1828 and EPICRIIDAE Fitzinger, 1843 (Amphibia, Gymnophiona)

(Case 2616 and Opinion 1604; see BZN **45**: 207–209, **46**: 134 and **47**: 166–167)

(1) Alain Dubois

Laboratoire des Reptiles et Amphibiens, Muséum national d'Histoire naturelle, 25 rue Cuvier, 75005 Paris, France

1. The suppression of the generic name *Epicrium* Wagler, 1828 in order to protect the family-group name ICHTHYOPHIIDAE Taylor, 1968 is very unsatisfactory for two fundamental and independent reasons: (a) the basic factual elements presented by

Wilkinson & Nussbaum (BZN **45**: 207–209) were inaccurate and (b) their proposal was contradictory to the basic philosophy of the Code, which is that family-group names, like those of genera and species, must follow the Principle of Priority.

2. Wilkinson & Nussbaum's argument rested on their interpretation of *Epicrium* Wagler, 1828 as a replacement name for *Ichthyophis* Fitzinger, 1826, and on the incorrect statement that Wagler (1828) considered the latter name to be a nomen nudum (see their para. 2). Wilkinson & Nussbaum recognized that *Caecilia glutinosa* Linnaeus, 1758 is the type species of *Ichthyophis* Fitzinger, 1826, but they incorrectly stated that *Epicrium* has the same type species. To make the discussion clearer, I think it useful to provide a translation of part of Wagler's comments on his new genus *Epicrium* (of which he had given a Latin diagnosis): 'Should Herr Fitzinger's genus *Ichthyophis* belong here? The inadequacy of a dichotomic method is demonstrated here again. Who is able to recognize a genus in the *Oppositum* to Herr Fitzinger's genus *Caecilia* '*truncus depressus*', which is the only characteristic given for his new genus *Ichthyophis*? Furthermore, this *Amphibium* has absolutely nothing fishlike, so that the name *Ichthyophis* should be rejected anyway, even if his genus did coincide with ours. I refrain from considering that the *Caecilia*, which Leschenault brought back from Ceylon and which is kept in the Paris Museum, belongs here...'.

3. This text shows clearly that Wagler was quite uncertain about his *Epicrium* being the same as Fitzinger's *Ichthyophis*. *Epicrium* must be considered the name of a new nominal genus, with its own type species, and not a replacement name as was suggested by Wilkinson & Nussbaum. It follows that the type species of *Epicrium* is *Epicrium hasseltii* Wagler, 1828 by monotypy, and not *Caecilia glutinosa*.

4. The type species of *Ichthyophis*, *Caecilia glutinosa* Linnaeus, 1758, is endemic to Sri Lanka, while *Epicrium hasseltii* is from Java. The genus *Ichthyophis* Fitzinger, 1826, as currently understood, is large and heterogeneous and has not been recently revised: future work may well lead to its being split into several genera or subgenera, and to the use of the name *Epicrium* for some of the species currently included in it. For this reason, the Commission should revoke the suppression of this generic name, which was regularly used in the 19th century and which should be available in a group of still poorly known animals, the systematics of which is not yet stabilized. As shown above, the grounds for its suppression (which was solely to eradicate the family-group name EPICRIIDAE) were in error.

5. Wilkinson & Nussbaum proposed that ICHTHYOPHIIDAE Taylor, 1968 should be protected, despite the priority of EPICRIIDAE Fitzinger, 1843. They gave two reasons for this, which I shall discuss successively.

(a) The first reason given by Wilkinson & Nussbaum (para. 7) was stated as follows: 'We think it desirable and in the spirit of the Code that family-group names should, where possible, be based on valid generic names'. Contrary to these authors, I consider that this statement is exactly the reverse of the philosophy of the Code, and I wonder where in the Code can be found this 'spirit'. Furthermore, a Code cannot be interpreted according to its supposed 'spirit': it must simply be followed, otherwise it is not a Code! Family-group names are governed by the rules of the Code, not by what a particular author may 'think desirable'. The basic rule for determining the valid name for a taxon is the Principle of Priority, which is clear and has nothing to do with the 'spirit' which Wilkinson & Nussbaum claim to be that of the Code; actually, this 'spirit' would result in many changes of family-group names for long established taxa. Quite apart from the status of *Epicrium*, saying that the name of a family-group taxon should be based on a generic name considered valid by taxonomists introduces a grave confusion between nomenclature and taxonomy: it is the same as the mistake (made by some authors) of saying that the name of the type species of a nominal genus should be a specific name considered valid. The Code provides a clear rule that determines unambiguously which name is valid for a taxon recognized within a given taxonomic frame: it is the earliest published name which rests on a name-bearing type referred by taxonomists to that taxon. No other consideration should be taken into account, because if it were this would tend to destroy the Code as a universal and permanent reference system.

(b) The second reason given by Wilkinson & Nussbaum for the suppression of the name EPICRIIDAE Fitzinger, 1843 was 'the confusion that would result from the replacement of a name that has gained general acceptance by an unused one, despite Article 40a(1) of the Code'. When rules on family-group names were first introduced in the Code, the stability of nomenclature was threatened in cases where the Principle of Priority had not been followed by previous authors. This is clearly the reason why the Code contains a provision (Article 40) for conserving some of these names. As was in effect admitted by Wilkinson & Nussbaum, however, Article 40a(1) prescribes that EPICRIIDAE Fitzinger, 1843 is a valid name, having priority over ICHTHYOPHIIDAE Taylor, 1968. I oppose the tendency of some authors to ask for the conservation of a name created only recently and used in a number of works, simply because they have not determined whether a senior synonym exists. Irrespective of the number of recent publications using such a junior synonym, I consider that it should only be conserved when its use has been not only intensive but also long (at least scattered over a 50-year period). This is consistent with Article 79 of the present Code. Acceptance by the Commission of proposals not respecting this principle will encourage taxonomists to work carelessly, without respect for the older literature, to create names for taxa already named, and to use names for a few years and then ask that they be 'protected'. If the Commission accedes to such requests its own credibilty within the international taxonomic community and respect for the Code will be seriously diminished.

(2) P.K.Tubbs

Executive Secretary, International Commission on Zoological Nomenclature

Inspection of the original description of the nominal genus *Epicrium* Wagler, 1828 shows that Prof Dubois is correct in his above comment: contrary to BZN **45**: 207, para. 2, *Epicrium* was not a replacement name for *Ichthyophis* Fitzinger, 1826. Wagler (pp. 742–743) established the name *Epicrium* and assigned to it '*Caecilia*.... [sic] Hasselt (Bullet. des sciences nat. 1824, 2. p. 375.) *Caecilia hypocyana* Hasselt [reference to Boie (1827; Isis, von Oken, **20**: 565)]'. After the generic description, Wagler continued 'Species: *Epicrium Hasseltii*', and followed with a brief description of the species ending 'Habitat in Java... Javanis *Oclur-doeël* dictum'. Van Hasselt (p. 373, not p. 375 as given by Wagler) described but did not name a '*Caecilia*' from Java known there as '*Oclur-doeël*', and stated that he had obtained only a single specimen. It is evident that *Epicrium* was based on a single species from Java with the available specific names *hypocyana* Boie, 1827 and *hasseltii* Wagler, 1828. As pointed out by Prof Dubois (para. 4), *Caecilia glutinosa* Linnaeus, 1758, the type species of *Ichthyophis*, is a distinct species (endemic to Sri Lanka), and it may be that future workers will wish to separate

Ichthyophis (*C. glutinosa*) and *Epicrium* (*C. hypocyana*) at generic or subgeneric level, and perhaps even place them in different family-group taxa. Since *Epicrium* was suppressed in Opinion 1604 (June 1990; BZN **47**: 166–167) on the mistaken assumption that it was a replacement name for *Ichthyophis*, and solely to dispose of the name EPICRIIDAE so as to conserve the relatively recent but widely accepted (see BZN **45**: 208) family name ICHTHYOPHIIDAE, there are grounds for proposing that this generic name should be conserved. Prof Dubois has made the additional proposal that on grounds of priority EPICRIIDAE Fitzinger, 1843 should replace ICHTHYOPHIIDAE Taylor, 1968; this is contrary to the views of Wilkinson & Nussbaum (BZN **45**: 207–209) and Smith (BZN **46**: 134). The two proposals can be considered separately by the Commission. It may be noted again (see BZN **47**: 166–167) that EPICRIIDAE Fitzinger is a senior homonym of the mite family name EPICRIIDAE Berlese, 1885.

The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  (a) to revoke the suppression of the generic name *Epicrium* Wagler, 1828;
  (b) to rule that the family-group name ICHTHYOPHIIDAE Taylor, 1968 (type genus *Ichthyophis* Fitzinger, 1826) is to be given precedence over the name EPICRIIDAE Fitzinger, 1843 (type genus *Epicrium* Wagler, 1828) whenever the two names are considered to be synonyms;

(2) to place on the Official List of Generic Names in Zoology, and delete from the Official Index of Rejected and Invalid Generic Names in Zoology, the name *Epicrium* Wagler, 1828 (gender: neuter), type species by monotypy *Caecilia hypocyana* Boie, 1827;

(3) to place on the Official List of Specific Names in Zoology the name *hypocyana* Boie, 1827, as published in the binomen *Caecilia hypocyana* (specific name of the type species of *Epicrium* Wagler, 1828);

(4) to place on the Official List of Family-Group Names in Zoology the following names:
  (a) ICHTHYOPHIIDAE Taylor, 1968 (type genus *Ichthyophis* Fitzinger, 1826), with the endorsement that it is to be given precedence over the name EPICRIIDAE Fitzinger, 1843 (type genus *Epicrium* Wagler, 1828) whenever the two names are considered to be synonyms;
  (b) EPICRIIDAE Fitzinger, 1843 (type genus *Epicrium* Wagler, 1828), with the endorsement that it is not to be given priority over the name ICHTHYOPHIIDAE Taylor, 1968 whenever the two names are considered to be synonyms.

Comments on the proposed conservation of the specific name of *Coccyzus euleri* Cabanis, 1873 (Aves, Cuculiformes)

(Case 2727; see BZN **47**: 195–197)

(1) Richard C. Banks

United States Department of the Interior, Fish and Wildlife Service, National Museum of Natural History, Washington, D.C. 20560, U.S.A.

The authors, Drs E.O. Willis and Y. Oniki, of the application seeking to conserve the name *Coccyzus euleri* Cabanis, 1873 by the suppression of *C. julieni* Lawrence, 1864 have cited my work (Banks, 1988). It was this paper that led to the re-introduction of the latter name.

When I verified that the holotype of *C. julieni* is a representative of the South American species generally known by the name *C. euleri*, rather than the North American *C. americanus*, I was immediately aware of the nomenclatural implications because *julieni* predates *euleri*. The first draft of my manuscript was prepared treating *euleri* as the valid name and *julieni* as a nomen oblitum. Aware that such treatment might require formal action by the Commission (Articles 23b, 79c of the Code), I began to gather information to support a request that *julieni* be suppressed. However, I soon found that the name *julieni* had been used several times within the previous 50 years (as noted in Banks, 1988, pp. 90–91), and I believed that the facts would not support a request for suppression. I therefore revised the manuscript using *julieni* as the valid senior synonym. I still consider this action to be proper under the Code although I realize the inconvenience to South American ornithologists.

(2) Walter J. Bock
Department of Biological Sciences, Columbia University, New York, NY 10027, U.S.A.

Members of the Standing Committee on Ornithological Nomenclature (SCON) of the International Ornithological Congress have without exception supported the conservation of *Coccyzus euleri* Cabanis, 1873 and the suppression of *C. julieni* Lawrence, 1864, as requested by Willis & Oniki. They noted that the name *euleri* had been used by almost all workers publishing on the South American pearly-breasted cuckoo and that a change in the specific name for this species would only result in unnecessary instability and lack of universality. The name *julieni* had not been overlooked by avian systematists, but had been considered to refer to *Coccyzus americanus* and was usually placed in the synonymy of that species. Banks (1988) had provided a valuable service to ornithologists by determining the correct identification of the type specimen of *Coccyzus julieni*, but this service should not be negated by causing an unnecessary instability in nomenclature.

In their most recent supplement to the Check-list of North American Birds, the Check-list Committee of the American Ornithologists' Union stated (*Auk*, **106**: 534) that 'the Committee would support a petition to the I.C.Z.N. for the retention of the familiar and more widely used name *E. euleri*'.

Therefore, the SCON supports strongly the three proposals on BZN **47**: 196.

Comments on the proposed conservation of *Phororhacos* Ameghino, 1889 (Aves, Gruiformes)

(Case 2723; see BZN **47**: 198–201)

(1) Storrs L. Olson
Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

Chiappe & Soria propose to conserve the generic name *Phororhacos* Ameghino, 1889 over the senior spelling *Phorusrhacos* Ameghino, 1887, which was used in the combination *Phorusrhacos longissimus* Ameghino, 1887, new genus and species. Their justification for this lies with the spelling *Phororhacos* having been used by practically all authors after 1889 until the publication of Brodkorb's (1967) *Catalogue*, and also because of the fear of confusion resulting from supposedly having to retain the family spelling PHORORHACIDAE even if the genus *Phorusrhacos* were used. These arguments seem neither compelling nor valid, however.

Because the species name *longissimus* must still date from the 1887 publication in the original combination *Phorusrhacos longissimus*, substitution of the junior emendation *Phororhacos* for the generic name would not be without some level of bibliographic confusion itself. For this reason, and because it is always desirable not to circumvent priority unnecessarily, the spelling *Phorusrhacos* should be retained. As Chiappe & Soria have shown, most recent authors, following Brodkorb (1967), have already adopted this usage without undue confusion. The name *Phorusrhacos* is consequently well established in the modern literature, is widely understood, and need not be changed once again.

Contrary to the interpretation of Chiappe & Soria, I do not consider that Article 40a of the Code applies to this case and therefore it is not necessary to retain the name PHORORHACIDAE as the family name to include *Phorusrhacos*. Article 40a states that a family name is to be retained even if it is based on a 'rejected junior synonym'. *Phororhacos*, however, is merely an unjustified emendation of *Phorusrhacos*. PHORORHACIDAE is itself but an emendation of Ameghino's 'PHORORHACOSIDAE', and there is no reason to regard the name PHORUSRHACIDAE as anything more than Brodkorb's (1967) having merely extended this process of emendation.

Because both priority and current usage are in agreement in this case, the International Commission on Zoological Nomenclature is accordingly asked not to invoke its plenary powers to accept the proposals on BZN **47**: 199, but instead to support the status quo by placing the following names on the relevant Official Lists:

(1) *Phorusrhacos* Ameghino, 1887 (gender: masculine), type species by monotypy *Phorusrhacos longissimus* Ameghino, 1887;
(2) *longissimus* Ameghino, 1887, as published in the binomen *Phorusrhacos longissimus* (specific name of the type species of *Phorusrhacos* Ameghino, 1887);
(3) PHORUSRHACIDAE Ameghino, 1889 (type genus *Phorusrhacos* Ameghino, 1887) (correction by Brodkorb (1967) of PHORORHACOSIDAE).

(2) Walter J. Bock
Department of Biological Sciences, Columbia University, New York, NY 10027, U.S.A.

Members of the Standing Committee on Ornithological Nomenclature (SCON) of the International Ornithological Congress have unanimously supported the proposed conservation of *Phororhacos* Ameghino, 1889 and the suppression of *Phorusrhacos* Ameghino, 1887. They noted that the action taken by Brodkorb (1963) was counter to the provisions of the Code in force at that time and that Cracraft (1968, 1969) had rejected *Phorusrhacos* Ameghino, 1887 as a nomen oblitum (although unfortunately he had not submitted an application to the Commission). Although a number of workers have used *Phorusrhacos* Ameghino, 1887 since 1963, the result has been instability and lack of universality. Because relatively few papers have been published on these birds during the past three decades, there has been considerably more use of the generic name *Phororhacos* Ameghino, 1889 in the literature.

Under Article 40 of the Code since 1961 the correct family-group name for this group is PHORORHACIDAE Ameghino, 1889 (type genus *Phororhacos* Ameghino, 1889) regardless of whether the valid name of the genus is *Phororhacos* or *Phorusrhacos*. Proposal of the family-group name PHORUSRHACIDAE by Brodkorb (1963) was counter to the Code. Clarity would be gained by conservation of *Phororhacos* Ameghino, 1889, since otherwise the valid names for the family-group and for its type genus would differ.

Therefore, the SCON supports strongly all six proposals made by Chiappe & Soria on BZN **47**: 199.

Comments on the family name for the storm petrels (Aves)

(Case 2024; see BZN **42**: 398–400; **44**: 44–45; **45**: 221–222)

(1) W.J. Bock
Department of Biological Sciences, Columbia University, New York, NY 10027, U.S.A.

Melville (BZN **42**: 398–400) presented a thorough review of the family names used for the storm petrels (currently HYDROBATIDAE) and the dippers (CINCLIDAE) and a set of proposals to the Commission. Olson (BZN **44**: 44–45) objected to the proposals advocated by Melville and in doing so indicated an ignorance of the basic object of the Code 'to promote stability and universality in the scientific names of animals' as stated in the Preamble, and of several of its detailed provisions. In June 1986, at its meeting during the XIX International Ornithological Congress, the members of the Standing Committee on Ornithological Nomenclature (SCON) voted (8 affirmative and 1 negative) to 'affirm its strong acceptance of the Principle of Established Usage as had been adopted at its meeting during the Moscow congress' (Bock, 1988, p. 64). In December 1990, at its meeting during the XX International Ornithological Congress, members of the SCON reviewed Melville's application on HYDROBATIDAE, voted unanimously to support strongly its conclusions and requested that the Commission take prompt action on this case.

When Brodkorb published the first part of his catalogue of fossil birds (1963), the 1961 edition of the Code was in effect. In advocating the name OCEANITIDAE in preference to the name HYDROBATIDAE for the storm petrels, Brodkorb violated three provisions of that Code, namely the Preamble, Article 23b and Article 23d. Most ornithologists, clearly recognizing the chaos which would result from his action, have not followed Brodkorb's lead and continued to use the well-established name HYDROBATIDAE for this group. Improper use of the name OCEANITIDAE for the storm petrels by a few later workers, based on the invalid action by Brodkorb, does not provide a foundation on which to argue that OCEANITIDAE is the valid name for this family-level taxon. For every paper cited by Olson in which the name OCEANITIDAE was used for this family it would be easily possible to list ten or more papers published after 1963 in which HYDROBATIDAE was used. Moreover, all of the major ornithological check-lists and reference works continue to use HYDROBATIDAE.

Based on the provisions of the current Code (3rd edition, 1985), it is clear that the proper name for the storm petrels is HYDROBATIDAE Mathews, 1912 (1865); the presumed homonymy with HYDROBATIDAE Degland, 1849 (p. 445) must be referred to the Commission for their action (Article 55b). HYDROBATIDAE Mathews, 1912 (p. 9) (1865) takes precedence, under Article 40b, from 1865, the date of the replaced name THALASSIDROMIDAE von Müller which predates its junior subjective synonym OCEANITIDAE Forbes, 1882 (p. 3, based on *Oceanites* Keryserling & Blasius, 1840) by 17 years. The name OCEANITINAE is available for use for a subfamily within the HYDROBATIDAE. Moreover, the situation is complicated by the strong possibility that the original use of the name PROCELLARIIDAE Leach, 1820 was based on *Procellaria* Linnaeus, 1766 (type species the storm petrel *Procellaria pelagica* Linnaeus, 1758) and not on *Procellaria* Linnaeus, 1758 (type species the shearwater *P. aequinoctialis* Linnaeus, 1758). In the first detailed subdivision of the PROCELLARIIDAE into subgroups, Bonaparte (1854) used the name PROCELLARIINAE (based on *P. pelagica*) for the group containing the storm petrels. Ambiguities resulting when tracing many well-established family-group names in zoology back to their earliest applications demonstrate the immense difficulties in attempting to reach stability in these names only by the application of the Principle of Priority.

The remaining question is the homonymy of the names HYDROBATIDAE Mathews, 1912 (1865) and HYDROBATIDAE Degland, 1849 or HYDROBATIDAE Degland & Gerbe, 1867; the last two usages are based on *Hydrobata* Vieillot, 1816 (a junior objective synonym of *Cinclus* Borkhausen, 1797). Examination of Degland (1849) shows that although he proposed the name HYDROBATIDAE for the birds commonly called the dippers, he used as valid the name *Cinclus* Borkhausen, 1797 in this family, not *Hydrobata* Vieillot, 1816 which was mentioned only in a footnote. Hence the family-group name HYDROBATIDAE Degland, 1849 is not available (Article 11f(i)), and the first available use of the name HYDROBATIDAE for the dippers is by Degland & Gerbe (1867), based on *Hydrobata* Vieillot, 1816. HYDROBATIDAE Mathews, 1912 (1865), which takes precedence from 1865, is the senior homonym of HYDROBATIDAE Degland & Gerbe, 1867. Since HYDROBATIDAE Degland & Gerbe is a junior synonym of CINCLIDAE Sundevall, 1836 and is unlikely ever to be the valid name for the dippers no need exists to resolve its homonymy.

The currently valid name for the family-level group (the storm petrels) containing the genus *Hydrobates* Boie, 1822 is HYDROBATIDAE Mathews, 1912 (1865). Although no formal action by the Commission is needed to conserve its well-established usage, clarity of the names discussed above is best achieved by a vote by the Commission. The proposals of Melville (BZN **42**: 399–400) can be simplified greatly by a single proposal, namely that the family-group name HYDROBATIDAE Degland, 1849 is not available for purposes of zoological nomenclature because it was based on a generic name not then used as valid by the author; the name would be placed on the Official Index of Rejected and Invalid Family-Group Names.

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(2) P.K. Tubbs

Executive Secretary, International Commission on Zoological Nomenclature

As pointed out by Dr Bock in the above comment, HYDROBATIDAE Mathews, although published in 1912, takes precedence from 1865 under Article 40b of the Code; although Mathews did not explicitly cite THALASSIDROMIDAE von Müller, 1865 (p. 594), he clearly rejected *Thalassidroma* as being a junior objective synonym of *Hydrobates* and HYDROBATIDAE has gained extremely wide (see Bourne, BZN **45**: 221–222) though not universal (Olson, BZN **44**: 44–45) acceptance for the storm petrels.

Bock has discussed the family name HYDROBATIDAE Degland, 1849 (p. 445) for the dippers. Although not valid (since CINCLIDAE Sundevall, 1836 is senior) HYDROBATIDAE Degland would, if available, be a senior homonym of HYDROBATIDAE Mathews, 1912 (1865). Degland (1849, p. 446) stated that there was only one [taxonomic] genus in his family, and gave the name '*Cinclus* Bechst. (1802)', with '*Hydrobata* Vieill. (1816)' cited as a synonym. He said in a footnote [in translation]: 'The generic names *Cincle* and *Cinclus* having been applied long ago [e.g. in Moehring's 1752 *Geslachten der Vogelen*] to birds of a genus entirely different from that under discussion it would perhaps be more rational to adopt that of *Hydrobata* proposed by Vieillot. If I have not done this, it is so as not to incur blame for having abandoned an established name for another name, which few authors, up to the present, have accepted'. It is evident that HYDROBATIDAE Degland, 1849 was based on the junior objective synonym *Hydrobata*; although it might not be available under a strict interpretation of Article 11f(i), since *Hydrobata* was not 'used as valid', it is desirable to put the matter beyond doubt. Both Bock and Melville (BZN **42**: 400) have proposed that HYDROBATIDAE Degland, 1849 be put on the Official Index of Rejected and Invalid Family-Group Names. There is no need to put OCEANITIDAE Forbes, 1882 on the Official List as its status needs no action.

As a simplified version of Melville's proposals (BZN **42**: 399–400) the International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
   (a) to suppress the generic name *Hydrobata* Vieillot, 1816 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
   (b) to rule that HYDROBATIDAE Degland, 1849 and other family-group names based on *Hydrobata* Vieillot, 1816 are unavailable because the name of that nominal genus has been suppressed in (1)(a) above;

(2) to place on the Official List of Generic Names in Zoology the name *Hydrobates* Boie, 1822 (gender: masculine), type species by subsequent designation by Baird, Brewer & Ridgway (1884) *Procellaria pelagica* Linnaeus, 1758;

(3) to place on the Official List of Specific Names in Zoology the name *pelagica* Linnaeus, 1758, as published in the binomen *Procellaria pelagica* (specific name of the type species of *Hydrobates* Boie, 1822);

(4) to place on the Official List of Family-Group Names in Zoology the name HYDROBATIDAE Mathews, 1912 (1865) (type genus *Hydrobates* Boie, 1822), with an endorsement that it takes the precedence of the replaced family-group name THALASSIDROMIDAE von Müller, 1865 (p. 594);

(5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Hydrobata* Vieillot, 1816, as suppressed in (1)(a) above;

(6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name HYDROBATIDAE Degland, 1849, ruled in (1)(b) above to be unavailable because the name of the type genus *Hydrobata* Vieillot, 1816 has been suppressed.

OPINION 1635

Gryphaea pitcheri Morton, 1834 (currently *Texigryphaea pitcheri*; Mollusca, Bivalvia): specific name conserved

Ruling

(1) Under the plenary powers the specific name *corrugata* Say, 1823, as published in the binomen *Gryphaea corrugata*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *pitcheri* Morton, 1834, as published in the binomen *Gryphaea pitcheri*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *corrugata* Say, 1823, as published in the binomen *Gryphaea corrugata* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2683

An application for the conservation of the specific name of *Gryphaea pitcheri* Morton, 1834 was received from Drs B.S. Kues (*University of New Mexico, Albuquerque, U.S.A.*) and S.G. Lucas (*New Mexico Museum of Natural History, Albuquerque, U.S.A.*) on 6 October 1988. After correspondence the case was published in BZN **46**: 226–228 (December 1989). Notice of the case was sent to appropriate journals.

A comment in support from Dr R.W. Scott (*Amoco Production Company, Tulsa, U.S.A.*) was published in BZN **47**: 205 (September 1990).

It was noted on the voting paper that authorship of *Gryphaea corrugata* is correctly cited as 'Say in James, 1823' and not 'Say in Thomas, 1823' (cf. para. 1 of the application), and that the type species of *Texigryphaea* (cf. para. 4) is *Gryphaea roemeri* Marcou, 1862.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 227. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 2: Holthuis and Thompson.

Mroczkowski abstained, commenting: 'I think that the best solution is to designate the holotype of *Gryphaea pitcheri* as a neotype of *G. corrugata*'. Voting against, Holthuis also suggested that a neotype designation for *G. corrugata* Say could be a solution to the case.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

corrugata, Gryphaea, Say, 1823, *in* James, E., *Account of an expedition from Pittsburgh to the Rocky Mountains, performed in the years 1819 and '20, under the command of Major Stephen H. Long*, vol. 2, p. 410.
pitcheri, Gryphaea, Morton, 1834, *Synopsis of the organic remains of the Cretaceous group of the United States*, p. 55.

OPINION 1636

Myriochele Malmgren, 1867 and *Myriochele oculata* Zaks, 1923 (Annelida, Polychaeta): conserved

Ruling

(1) Under the plenary powers the following names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(a) the generic name *Psammocollus* Grube, 1866;

(b) the specific name *tenuissima* Ørsted, 1844, as published in the binomen *Clymenia tenuissima.*

(2) The name *Myriochele* Malmgren, 1867 (gender: feminine), type species by monotypy *Myriochele heeri* Malmgren, 1867, is hereby placed on the Official List of Generic Names in Zoology.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *heeri* Malmgren, 1867, as published in the binomen *Myriochele heeri* (specific name of the type species of *Myriochele* Malmgren, 1867);

(b) *oculata* Zaks, 1923, as published in the binomen *Myriochele oculata.*

(4) The name *Psammocollus* Grube, 1866, as suppressed in (1)(a) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(5) The name *tenuissima* Ørsted, 1844, as published in the binomen *Clymenia tenuissima* and as suppressed in (1)(b) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2554

An application for the conservation of the generic name *Myriochele* Malmgren, 1867 and the specific name *oculata* Zaks, 1923 was received from Drs R. Nilsen (*Institute of Biology and Geology, University of Tromsö, Norway*) and T. Holthe (*Granvegen 27a, N-7058 Jakobsli, Trondheim, Norway*) on 30 January 1986. After correspondence the case was published in BZN **46**: 229–232 (December 1989). Notice of the case was sent to appropriate journals.

Comments in support from Dr Susan Chambers (*National Museums of Scotland, Edinburgh, U.K.*), and Drs Andrew Mackie (*National Museum of Wales, Cardiff, U.K.*) & Fredrik Pleijel (*Swedish Museum of Natural History, Stockholm, Sweden*) were published in BZN **47**: 125 (June 1990).

Comments by Dr R. Thomas Becker (*University of Southampton, U.K.*) and Prof Dr G. Hahn (*Marburg, Germany*), published in BZN **47**: 124–125 (June 1990), noted that the suppression of *Clymenia* Ørsted, 1844 was unnecessary because it was a junior homonym of *Clymenia* Münster, 1834, a name in use for a late Devonian ammonoid. On the voting paper proposals (1)(a)(i) and (4)(a) in BZN **46**: 231 were therefore withdrawn.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 231. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 3: Holthuis, Lehtinen and Mroczkowski.

Lehtinen commented: '*Psammocollus* Grube, 1866 is by no means obscure and there are no reasons to reject it when undisputed information about its priority has been given'. Mroczkowski commented: 'As the names *Psammocollus* and *Myriochele* are subjective synonyms (based on different type species, from the southern Indian Ocean and Greenland respectively), I favour giving *Myriochele* precedence over *Psammocollus* but I do not support suppression of the latter name'.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

heeri, *Myriochele*, Malmgren, 1867, *Spetsbergens, Grönlands, Islands och den Skandinaviska halföns hittills kända Annulata Polychaeta*, p. 101.

Myriochele Malmgren, 1867, *Spetsbergens, Grönlands, Islands och den Skandinaviska halföns hittills kända Annulata Polychaeta*, p. 101.

oculata, *Myriochele*, Zaks, 1923, *Trudy Petrogradskoga Obshchestva Estestvoispytatelei*, **53**(1): 163.

Psammocollus Grube, 1866, *Verhandlungen der Kaiserlich-Königlichen zoologisch-botanischen Gesellschaft in Wien*, **16**: 178.

tenuissima, *Clymenia*, Ørsted, 1844, *De regionibus marinis. Elementa topographiae historiconaturalis, Freti Øresund.* [Dissertation], p. 79.

OPINION 1637

Aphonopelma Pocock, 1901 (Arachnida, Araneae): given precedence over *Rhechostica* Simon, 1892

Ruling

(1) Under the plenary powers the generic name *Aphonopelma* Pocock, 1901 is hereby given precedence over *Rhechostica* Simon, 1892 whenever the two names are considered to be synonyms.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

(a) *Aphonopelma* Pocock, 1901 (gender: neuter), type species by original designation *Eurypelma seemanni* F.O. Pickard-Cambridge, 1897, with the endorsement that it is to be given precedence over *Rhechostica* Simon, 1892 whenever the two names are considered to be synonyms;

(b) *Rhechostica* Simon, 1892 (gender: feminine), type species by monotypy *Homoeomma texense* Simon, 1892, with the endorsement that it is not to be given priority over *Aphonopelma* Pocock, 1901 whenever the two names are considered to be synonyms.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *seemanni* F.O. Pickard-Cambridge, 1897, as published in the binomen *Eurypelma seemanni* (specific name of the type species of *Aphonopelma* Pocock, 1901);

(b) *texense* Simon, 1892, as published in the binomen *Homoeomma texense* (specific name of the type species of *Rhechostica* Simon, 1892).

History of Case 2662

An application to give the generic name *Aphonopelma* Pocock, 1901 precedence over *Rhechostica* Simon, 1892 was received from Professors H.W. Levi (*Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, U.S.A.*) and O. Kraus (*Zoologisches Institut und Museum, Hamburg, Germany*) on 29 April 1988. After correspondence the case was published in BZN **46**: 165–166 (September 1989). Notice of the case was sent to appropriate journals.

Comments in support from Dr Edwin E. Minch (*Mesa, Arizona, U.S.A*), Mr Carlos E. Valerio (*Universidad de Costa Rica, San Jose, Costa Rica*), Dr Frederick A. Coyle (*Western Carolina University, Cullowhee, North Carolina, U.S.A.*) and Mr Pablo A. Goloboff (*Museo Argentino de Ciencas Naturales, Buenos Aires, Argentina*) were published in BZN **46**: 189–190 (September 1989). A note of four further comments in support, from Drs J.C. Cokendolpher (*Texas Tech University, Lubbock, U.S.A.*), B.Y. Main (*University of Western Australia, Perth*), D. Ubick (*California Academy of Sciences, San Francisco, U.S.A.*) and T. Yaginuma (*Osaka, Japan*), was published in BZN **47**: 127 (June 1990). A further supportive comment from Mr Vincent D. Roth (*Portal, Arizona, U.S.A.*) was noted on the voting paper.

Comments in opposition from Mr Rick C. West (*Victoria, B.C., Canada*) and Dr R.J. Raven (*Queensland Museum, South Brisbane, Australia*) were published in BZN **46**: 190 (September 1989) and BZN **47**: 126–127 (June 1990) respectively. A reply by the authors of the application to Dr Raven's opposition was published in BZN **47**: 211 (September 1990).

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals in BZN **46**: 166. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 19: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Nielsen, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 9: Dupuis, Heppell, Holthuis, Kabata, Lehtinen, Mroczkowski, Nye, Ride and Starobogatov.

Kabata commented: 'I vote against these proposals because I believe in the necessity of upholding the Principle of Priority as the cornerstone of nomenclatural stability, unless there are compelling reasons for setting it aside. I see no such reasons here'. Lehtinen said that he agreed with Dr Raven's comments (BZN **47**: 126). Ride considered that the name *Rhechostica* Simon, 1892 could be suppressed. However, in correspondence the applicants and others had specifically indicated that *Rhechostica* should remain available since its synonymy with *Aphonopelma* (and other nominal genera) was not settled.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Aphonopelma Pocock, 1901, *Annals and Magazine of Natural History*, (7)**8**(48): 553.

Rhechostica Simon, 1892, *Histoire Naturelle des Araignées*, Ed. 2, part 1, p. 162.

seemanni, Eurypelma, F.O. Pickard-Cambridge, 1897, *Biologia Centrali-Americana, Zoologia*, vol. 2, p. 26.

texense, Homoeomma, Simon, 1892, *Actes de la Société Linnéene de Bordeaux*, (5)**4**: 320.

OPINION 1638

Holostaspis subbadius var. *robustulus* Berlese, 1904 (currently *Macrocheles robustulus*; Arachnida, Acarina): specific name conserved

Ruling

(1) Under the plenary powers the specific name *rubustulus* Berlese, 1904, as published in the trinomen *Holostaspis subbadius* var. *rubustulus*, is hereby treated as an incorrect original spelling of the name *robustulus*.

(2) The name *robustulus*, as a correction of *rubustulus* Berlese, 1904, as published in the trinomen *Holostaspis subbadius* var. *rubustulus*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *rubustulus* Berlese, 1904, as published in the trinomen *Holostaspis subbadius* var. *rubustulus* as an incorrect original spelling of *robustulus*, as ruled in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2725

An application for the conservation of the widely used specific name of *Macrocheles robustulus* (Berlese, 1904) was received from Dr R.B. Halliday (*C.S.I.R.O., Canberra, Australia*) on 30 May 1989. After correspondence the case was published in BZN **47**: 24–26 (March 1990). Notice of the case was sent to appropriate journals.

A note of 31 comments in support was published in BZN **47**: 212 (September 1990).

A comment in support from Prof G.W. Krantz (*Oregon State University, Corvallis, U.S.A.*) noted that 'another bit of evidence as to Berlese's intentions regarding the spelling of this name [*robustulus*] may be found on p. 155 of his unedited *Familia Gamasidae. Tribus Macrochelini* (Istituto Sperimentale per la Zoologia Agraria, Firenze). The drawing presented there is labeled '*Macrocheles subbadius* var. *robustulus* Berl...' '.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **47**: 25. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Kabata, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Holthuis and Kraus.

Dupuis abstained because the application had been published for less than a year.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

robustulus, *Holostaspis*, Berlese, 1904, *Redia*, **1**: 264 (incorrectly spelled as *rubustulus*).

rubustulus, *Holostaspis*, Berlese, 1904, *Redia*, **1**: 264 (an incorrect original spelling of *robustulus*).

OPINION 1639

Shoemakerella Pirlot, 1936 (Crustacea, Amphipoda): *Lysianax cubensis* Stebbing, 1897 designated as the type species

Ruling

(1) Under the plenary powers all designations of type species for the nominal genus *Shoemakerella* Pirlot, 1936 are hereby set aside and *Lysianax cubensis* Stebbing, 1897 is designated as the type species.

(2) The name *Shoemakerella* Pirlot, 1936 (gender: feminine), type species by designation under the plenary powers in (1) above *Lysianax cubensis* Stebbing, 1897, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *cubensis* Stebbing, 1897, as published in the binomen *Lysianax cubensis* (specific name of the type species of *Shoemakerella* Pirlot, 1936), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2711

An application for the designation of *Lysianax cubensis* Stebbing, 1897 as the type species of *Shoemakerella* Pirlot, 1936 was received from Drs J.K. Lowry & H.E. Stoddart (*Australian Museum, Sydney South, Australia*) on 21 February 1989. After correspondence the case was published in BZN **46**: 236–238 (December 1989). Notice of the case was sent to appropriate journals.

Comments in support from Drs Richard C. Brusca (*Natural History Museum, San Diego, California, U.S.A.*) and Michael H. Thurston (*Institute of Oceanographic Sciences, Godalming, Surrey, U.K.*) were published in BZN **47**: 213 (September 1990), together with a note of a further comment in support from Prof Krzysztof Jażdżewski (*Uniwersytet Łódzki, Łódź, Poland*).

A further supportive comment was received from Prof Michael F. Gable (*Eastern Connecticut State University, Willimantic, Connecticut, U.S.A.*), writing also on behalf of Dr Eric Lazo-Wasem (*Peabody Museum, Yale University, U.S.A.*). Prof Gable noted that a recent discovery of several of Dana's amphipod type specimens from the U.S. Exploring Expedition (1838–1842) in the Peabody Museum did not include *Lysianassa nasuta* Dana, 1853, corroborating para. 4 of the application. Prof Gable also wrote: 'Our work on the lysianassids in Bermuda strongly agrees with the evidence stated by Lowry & Stoddart that *L. nasuta* does not fit Pirlot's concept of *Shoemakerella*. It is evident to us that only by considering Pirlot's description of *Shoemakerella* to be based on *Lysianax cubensis* Stebbing, 1897 can the historical evidence and current findings on these amphipods be in harmony and be correct. We believe that *Shoemakerella* is indeed a valid genus and we support wholeheartedly Lowry & Stoddart's proposed designation of *Lysianax cubensis* as the type species'.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 237. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 28: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno and Willink

Negative votes — none.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

cubensis, Lysianax, Stebbing, 1897, *Transactions of the Linnean Society of London*, (2), Zoology, **7**: 29.

Shoemakerella Pirlot, 1936, *Siboga-Expeditie, Monographs*, **33e**: 264.

OPINION 1640

Ranguna Bott, 1966 and *Larnaudia* Bott, 1966 (Crustacea, Decapoda): *Potamon rangoonensis* Rathbun, 1904 and *Thelphusa larnaudii* A. Milne Edwards, 1869 confirmed as the respective type species

Ruling

(1) *Potamon rangoonensis* Rathbun, 1904 is hereby confirmed as the type species of the nominal genus *Ranguna* Bott, 1966.

(2) *Thelphusa larnaudii* A. Milne Edwards, 1869 is hereby confirmed as the type species of the nominal genus *Larnaudia* Bott, 1966.

(3) The following names are hereby placed on the Official List of Generic Names in Zoology:

- (a) *Ranguna* Bott, 1966 (gender: feminine), type species by original designation and confirmed in (1) above, *Potamon rangoonensis* Rathbun, 1904;
- (b) *Larnaudia* Bott, 1966 (gender: feminine), type species by monotypy and confirmed in (2) above, *Thelphusa larnaudii* A. Milne Edwards, 1869.

(4) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *rangoonensis* Rathbun, 1904, as published in the binomen *Potamon rangoonensis* and as confirmed in (1) above (specific name of the type species of *Ranguna* Bott, 1966);
- (b) *larnaudii* A. Milne Edwards, 1869, as published in the binomen *Thelphusa larnaudii* and as confirmed in (2) above (specific name of the type species of *Larnaudia* Bott, 1966).

History of Case 2624

An application to designate *Thelphusa longipes* A. Milne Edwards, 1869 and *Thelphusa larnaudii* A. Milne Edwards, 1869 as the respective type species of *Ranguna* Bott, 1966 and *Larnaudia* Bott, 1966 was received from Drs M. Türkay (*Forschungsinstitut Senckenberg, Frankfurt, Germany*) and P. Naiyanetr (*Chulalongkorn University, Bangkok, Thailand*) on 8 September 1987. After correspondence the case was published in BZN **46**: 101–103 (June 1989). Notice of the case was sent to appropriate journals.

Comments in support of the proposals for *Larnaudia* Bott, 1966, but opposing those for *Ranguna* Bott, 1966, from Dr Peter K.L. Ng (*Department of Zoology, National University of Singapore*) and from Prof L.B. Holthuis (*Nationaal Natuurhistorisch Museum, Leiden, The Netherlands*) were published in BZN **47**: 45–47 (March 1990). Copies of these comments were sent to both authors of the application but no reply was received.

The proposals in para. 5 on BZN **46**: 102, (1) to set aside all previous designations of type species for the nominal genus *Ranguna* Bott, 1966 and to designate *Thelphusa longipes* A. Milne Edwards, 1869 as the type species, and (2) to confirm *Thelphusa larnaudii* A. Milne Edwards, 1869 as the type species of *Larnaudia* Bott, 1966, were presented separately for voting. The plenary powers were needed for proposal (1) but not for proposal (2).

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the two proposals. At the close of the voting period on 1 March 1991 the votes were as follows:

Proposal 1. Affirmative votes — 5: Bock, Corliss, Kabata, Mahnert, Trjapitzin

Negative votes — 22: Bayer, Cocks, Cogger, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kraus, Lehtinen, Macpherson, Martins de Souza, Minelli, Mroczkowski, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Uéno and Willink.

No vote was received from Nielsen.

Proposal 2. Affirmative votes — 28: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno and Willink

Negative votes — none.

Since Proposal 1, which involved setting aside *Potamon rangoonensis* Rathbun, 1904 as the type species of *Ranguna* Bott, 1966, was not accepted by the Commission, that nominal species remains the type species by original designation. Bott (1966) misquoted the spelling of *P. rangoonensis* Rathbun as *P. rangoonense*, and this was repeated in the published application and comments.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Larnaudia Bott, 1966, *Senckenbergiana biologica*, **47**(6): 490.

larnaudii, *Thelphusa*, A. Milne Edwards, 1869, *Nouvelles archives du Muséum d'Histoire Naturelle de Paris*, **5**: 166.

rangoonensis, *Potamon*, Rathbun, 1904, *Nouvelles archives du Muséum d'Histoire Naturelle de Paris*, (4)**6**: 279.

Ranguna Bott, 1966, *Senckenbergiana biologica*, **47**(6): 481.

OPINION 1641

Carcinochelis Fieber, 1861 (Insecta, Heteroptera): *Carcinochelis alutaceus* Handlirsch, 1897 designated as the type species

Ruling

(1) Under the plenary powers all prior fixations of type species for the nominal genus *Carcinochelis* Fieber, 1861 are hereby set aside and *Carcinochelis alutaceus* Handlirsch, 1897 is designated as the type species.

(2) The name *Carcinochelis* Fieber, 1861 (gender: masculine), type species by designation under the plenary powers in (1) above *Carcinochelis alutaceus* Handlirsch, 1897, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *alutaceus* Handlirsch, 1897, as published in the binomen *Carcinochelis alutaceus* (specific name of the type species of *Carcinochelis* Fieber, 1861), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2700

An application for the designation of *Carcinochelis alutaceus* Handlirsch, 1897 as the type species of *Carcinochelis* Fieber, 1861 was received from Drs R.C. Froeschner (*U.S. National Museum of Natural History, Washington, D.C., U.S.A.*) and N.A. Kormilev (*Gulfport, Florida, U.S.A.*) on 29 December 1988. After correspondence the case was published in BZN **47**: 30–31 (March 1990). Notice of the case was sent to appropriate journals.

It was noted on the voting paper that, by subsequently assigning '*alutaceus* Fieber (non descriptus)' to *Carcinochelis* Fieber, 1861, Lethierry & Severin (1896) did not confer availability on the specific name (cf. para. 1 of the application), since there was no 'single combined description of a new nominal genus and a new nominal species' as required by Article 12b(6) of the Code. Subsequent authors (see, for example, Bergroth, 1917 and Hsiao, 1979) have attributed authorship of *alutaceus* to Handlirsch (1897), who provided a description of the species based on Fieber's specimen bearing the unpublished name.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **47**: 31. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 23: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Heppell, Kabata, Kraus, Lehtinen, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 4: Halvorsen, Holthuis, Macpherson and Thompson.

Dupuis abstained because the application had been published for less than a year.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

alutaceus, *Carcinochelis*, Handlirsch, 1897, *Annalen des Kaiserlich Königlichen Naturhistorischen Hofmuseums*, **12**: 222.

Carcinochelis Fieber, 1861, *Die europäischen Hemiptera Halbflügler* (*Rhynchota Heteroptera*). *Nach der analytischen Methode Bearbeitet*, p. 34.

OPINION 1642

Chlorophanus Sahlberg, 1823 (Insecta, Coleoptera): conserved

Ruling

(1) Under the plenary powers the generic name *Chlorima* Germar, 1817 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Chlorophanus* Sahlberg, 1823 (gender: masculine), type species by monotypy *Chlorophanus fallax* Sahlberg, 1823 is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *excisus* Fabricius, 1801, as published in the binomen *Curculio excisus* (senior subjective synonym of the specific name of *Chlorophanus fallax* Schönherr, 1823, the type species of *Chlorophanus* Sahlberg, 1823), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Chlorima* Germar, 1817, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 2218

An application for the conservation of *Chlorophanus* Sahlberg, 1823 was received from Dr Hans Silfverberg (*Universitets Zoologiska Museum, Helsingfors, Finland*) on 10 March 1977 but for various reasons was not published until BZN **44**: 110–111 (June 1987). Notice of the case was sent to appropriate journals.

In June 1987 Dr M.A. Alonso-Zarazaga (*Sección de Entomologia, Museo Nacional de Ciencias Naturales, Madrid, Spain*) by coincidence mentioned in a letter to the Commission Secretary that in 1984 he had 'resurrected' the senior synonym *Chlorima* Germar, 1817 and designated *Curculio viridis* Linnaeus, 1758 as the type species (Alonso-Zarazaga, 1984, p. 284). The Commission Secretariat was not able to get views on the best course of action from either Dr Silfverberg or Dr Alonso-Zarazaga until in 1990 Dr Silfverberg agreed that the application should be submitted to the Commission for voting.

The name *Chlorophanus* Sahlberg, 1823 has had wide usage, with *Curculio excisus* Fabricius, 1801 and *C. viridis* Linnaeus, 1758 both placed in the genus, which includes some 50 species occurring throughout the Palaearctic region. Günther & Zumpt (1933; *Coleopterorum catalogus*, part 131), a standard work for the CURCULIONIDAE, used the name *Chlorophanus* and mentioned *Chlorima* only as a synonym.

A recent publication (Tempère & Péricart, 1989, pp. 85–86, 482) maintained usage of *Chlorophanus* and noted: 'Alonso (1984: 284) a proposé de substituer le nom *Chlorima* Germar, 1817 au nom *Chlorophanus* C.R. Sahlberg, 1823. Mais en 1987 une requête a été formulée auprès de la Commission Internationale de Nomenclature Zoologique en faveur de la conservation de *Chlorophanus*. En conséquence il paraît prudent d'attendre avant d'effectuer ce changement de nom générique'.

The application was supported by R.T. Thompson (*The Natural History Museum, London, U.K.*) who considered that replacing the well-known name *Chlorophanus* by *Chlorima*, unused except by Alonso-Zarazaga (1984), would cause loss of stability and confusion in the nomenclature of the genus.

Additional references

Alonso-Zarazaga, M.A. 1984. Validez del género *Chlorima* Germar, 1817 (Col. Curculionidae, Tanymecini). *Boletin de la Asociacion Española de Entomologia*, **8**: 284.

Günther, K. & Zumpt, F. 1933. Part 131 (Curculionidae: Subfam. Tanymecinae) *in* Schlenking, S. (Ed.), *Coleopterorum catalogus*. 131 pp. Junk, Berlin.

Tempère, G. & Péricart, J. 1989. Coléoptères Curculionidae, part 4 (compléments, corrections, repertoire). *Faune de France*, **74**: 1–534.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **44**: 110. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 4: Hahn, Holthuis, Macpherson and Thompson.

Hahn said that it would be better not to suppress *Chlorima*, but to give precedence to *Chlorophanus* when both genera are treated as synonyms.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Chlorima Germar, 1817, *Magazin der Entomologie*, **2**: 341.

Chlorophanus Sahlberg, 1823, *Periculi entomographici, species insectorum nondum descriptas propposituri, fasciculus*, p. 4.

excisus, *Curculio*, Fabricius, 1801, *Systema Eleutheratorum*, vol. 2, p. 531.

OPINION 1643

Ceratopogon puncticollis Becker, 1903 (currently *Culicoides puncticollis*; Insecta, Diptera): given precedence over *Ceratopogon algecirensis* Strobl, 1900

Ruling

(1) Under the plenary powers the specific name *puncticollis* Becker, 1903, as published in the binomen *Ceratopogon puncticollis*, is hereby given precedence over the specific name *algecirensis* Strobl, 1900, as published in the trinomen *Ceratopogon pulicaris algecirensis*, whenever the two names are considered to be synonyms.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *puncticollis* Becker, 1903, as published in the binomen *Ceratopogon puncticollis*, with the endorsement that it is to be given precedence over *algecirensis* Strobl, 1900, as published in the trinomen *Ceratopogon pulicaris algecirensis*, whenever the two names are considered to be synonyms.

(b) *algecirensis* Strobl, 1900, as published in the trinomen *Ceratopogon pulicaris algecirensis* Strobl, 1900, with the endorsement that it is not to be given priority over *puncticollis* Becker, 1903, as published in the binomen *Ceratopogon puncticollis*, whenever the two names are considered to be synonyms.

History of Case 2716

An application for *Ceratopogon puncticollis* Becker, 1903 to be given precedence over *Ceratopogon algecirensis* Strobl, 1900 was received from Mr J. Boorman (*Department of Entomology, The Natural History Museum, London, U.K.*) on 28 June 1988. After correspondence the case was published in BZN **46**: 179–180 (September 1989). Notice of the case was sent to appropriate journals.

Comments in support from Drs R.W. Crosskey (*c/o The Natural History Museum, London, U.K.*) and G.B. White (Editor, *Medical & Veterinary Entomology*) were published in BZN **47**: 48 (March 1990) and **47**: 214–215 (September 1990) respectively.

It was noted on the voting paper that *algecirensis* was not published by Strobl (1900, p. 170) as ‘forma’ (cf. para. 1 of the application), and that the word ‘forma’ should therefore be deleted from the proposals on BZN **46**: 180. This in no way affected the case.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 180 (September 1989). At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 1: Holthuis.

Thompson declined to vote: he had written to the Executive Secretary (who had in correspondence disagreed) that the name *algecirensis* Strobl, 1900 would not have been available under previous editions of the Code, and he considered that his suggestion that this name should be taken from a later (1906) paper by Strobl should have been published.

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

algecirensis, *Ceratopogon pulicaris*, Strobl, 1900, *Wiener Entomologische Zeitung*, **19**: 170.
puncticollis, *Ceratopogon*, Becker, 1903, *Mitteilungen aus dem Zoologischen Museum in Berlin*, **2**(3): 75.

OPINION 1644

Culex stigmatosoma Dyar, 1907 and *C. thriambus* Dyar, 1921 (Insecta, Diptera): specific names conserved

Ruling

(1) Under the plenary powers the specific name *peus* Speiser, 1904, as published in the binomen *Culex peus*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *stigmatosoma* Dyar, 1907, as published in the binomen *Culex stigmatosoma*;
(b) *thriambus* Dyar, 1921, as published in the binomen *Culex thriambus*.

(3) The name *peus* Speiser, 1904, as published in the binomen *Culex peus* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2702

An application for the conservation of the specific names of *Culex stigmatosoma* Dyar, 1907 and *Culex thriambus* Dyar, 1921 was received from Prof B.F. Eldridge (*University of California, Davis, U.S.A.*) and Dr R.E. Harbach (*Walter Reed Biosystematics Unit, Museum Support Center, Smithsonian Institution, Washington, D.C., U.S.A.*) on 11 January 1989. After correspondence the case was published in BZN **46**: 247–249 (December 1989). Notice of the case was sent to appropriate journals.

Comments in support from Dr G.B. White (Editor, *Medical & Veterinary Entomology*) and also Dr Daniel Strickman (*Armed Forces Research Institute of Medical Sciences, San Francisco, U.S.A.*) (cf. paras. 4 and 7 of the application) were published in BZN **47**: 215–216 (September 1990).

Five further comments in support, from Drs W.K. Reisen (*Arbovirus Field Station, Bakersfield, California, U.S.A.*), R. Garcia (*Agricultural Experiment Station, Albany, California, U.S.A.*), L.T. Nielsen (*American Mosquito Control Association, Lake Charles, Louisiana, U.S.A.*), B.A. Harrison (*Ft. Washington, Maryland, U.S.A.*) and R.A. Ward (*Walter Reed Army Institute of Research, Washington, D.C., U.S.A.*), were published in BZN **47**: 293–295 (December 1990) and noted on the voting paper. A further supportive comment from Dr John F. Reinert (*Gainesville, Florida, U.S.A.*) was also noted on the voting paper.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 248. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno and Willink

Negative votes — none.

Dupuis abstained because five comments in support (see above) were published during the voting period.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

peus, Culex, Speiser, 1904, *Insektenborse*, **21**: 148.

stigmatosoma, Culex, Dyar, 1907, *Proceedings of the United States National Museum*, **32**(1516): 121.

thriambus, Culex, Dyar, 1921, *Insecutor Inscitiae Menstruus*, **9**: 33.

OPINION 1645

Musca heraclei Linnaeus, 1758 (currently *Euleia heraclei*; Insecta, Diptera): specific name conserved

Ruling

(1) Under the plenary powers *heraclei* is hereby ruled to be the correct original spelling of the specific name *heraclii* Linnaeus, 1758, as published in the binomen *Musca heraclii*.

(2) The name *heraclei* Linnaeus, 1758, ruled in (1) above to be the correct original spelling of *heraclii*, as published in the binomen *Musca heraclii*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *heraclii* Linnaeus, 1758, as published in the binomen *Musca heraclii* and as ruled in (1) above to be an incorrect original spelling of *heraclei* Linnaeus, 1758, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2719

An application for the conservation of the established spelling of the specific name of the celery fly *Euleia heraclei* (Linnaeus, 1758) was received from Drs I.M. White (*CAB International Institute of Entomology, London, U.K.*) and P.R. Seymour (*M.A.F.F. Harpenden Laboratory, Harpenden, U.K.*) on 29 March 1989. After correspondence the case was published in BZN **46**: 252–254 (December 1989). Notice of the case was sent to appropriate journals.

An opposing comment, with notes on the history of the spellings *heraclii* and *heraclei*, by Dr F.C. Thompson (*United States Department of Agriculture, Washington, D.C., U.S.A.*), together with a reply by Dr I.M. White, one of the authors of the application, was published in BZN **47**: 132–134 (June 1990).

A comment in support of the application from Dr R.W. Crosskey (*c/o The Natural History Museum, London, U.K.*) was recorded on the voting paper. Dr Crosskey said that: 'As a dipterist myself, I am wholly behind the application and ask the Commission to vote in favour of it. Its spirit is right even though the applicants overlooked a few uses of *heraclii* published way back in the mists of time. This is no valid ground on which to oppose White & Seymour'.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 253. At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 22: Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Kabata, Kraus, Lehtinen, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 5: Bayer, Heppell, Holthuis, Macpherson and Savage.

Thompson declined to vote: he considered that a rejoinder by him to I.M. White's reply to his published comment [cf. above and BZN **47**: 132–134] should have been published.

Bayer commented: 'Second-guessing Linnaeus's reason for his spelling *Musca Heraclii* is a fruitless exercise. Considering his clear statement of the host plant, the name obviously is not derived from Heracles or from a place name, of which there are at least four. The spelling is not a demonstrable 'inadvertent error' (Article 32c (ii)), as Linnaeus used the same spelling in his citation of the host plant. Apparently 'Heraclii' was considered an error by Houttuyn (1768; *Natuurlyke Historie...*, Deel 1, Stuk 12, p. 518) in his expanded Dutch edition of *Systema Naturae*. Houttuyn changed the spelling to 'Heraclei'; as he merely quoted Linnaeus's original Latin diagnosis and translated it into Dutch, Houttuyn obviously was not describing a different fly, and 'Heraclei' therefore is an incorrect subsequent spelling. It is presumptuous to question Linnaeus's original spelling and I do not approve of arbitrarily changing a Linnaean spelling on the grounds of usage. The difference is small and could hardly represent a source of confusion'.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

heraclei, *Musca*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 600 (incorrectly spelled as *heraclii*).

heraclii, *Musca*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 600 (an incorrect original spelling of *heraclei*).

OPINION 1646

Coccobius Ratzeburg, 1852 (Insecta, Hymenoptera): not suppressed

Ruling

(1) The name *Coccobius* Ratzeburg, 1852 (gender: masculine), type species by designation by Gahan & Fagan (1923) *Coccobius annulicornis* Ratzeburg, 1852, is hereby placed on the Official List of Generic Names in Zoology.

(2) The name *annulicornis* Ratzeburg, 1852, as published in the binomen *Coccobius annulicornis* and as defined by the neotype designated by LaSalle & Bouček (1989) (specific name of the type species of *Coccobius* Ratzeburg, 1852), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2629

An application for the conservation of *Physcus* Howard, 1895 was received from Prof D. Rosen & Dr T. Rivnay (*The Hebrew University, Rehovot, Israel*) and Dr G. Viggiani (*Instituto di Entomologia Agraria 'Filippo Silvestri', Portici, Italy*) on 2 November 1987. After correspondence the case was published in BZN **45**: 288–291 (December 1988). Notice of the case was sent to appropriate journals.

An opposing comment from Drs John LaSalle & Zdenek Bouček (*CAB Institute of Entomology, London, U.K.*) was published in BZN **46**: 132–134 (June 1989). This comment included alternative proposals (BZN **46**: 133).

An opposing comment from Drs Gary Gibson & John Huber (*Biosystematics Research Centre, Ottawa, Canada*), replies by two of the authors of the application (Gennaro Viggiani and David Rosen) to the comment by LaSalle & Bouček, and a further comment by Dr LaSalle, were published in BZN **47**: 134–138 (June 1990).

It was noted on the voting paper that Drs LaSalle & Bouček (BZN **46**: 132–134) were against the proposed (BZN **45**: 290, para. 13) suppression of the name of *Coccobius annulicornis* Ratzeburg, 1852 (the type species of *Coccobius*) and contended that this was a synonym of *Physcus testaceus* Masi, 1910. They (para. 6) designated a specimen in the Natural History Museum, London, as the neotype of *C. annulicornis* and, in place of the original proposals in BZN **45**: 290, requested (para. 10) that the names having priority should be placed on appropriate Official Lists.

This was entirely a case of priority (of *Coccobius*) versus usage (of *Physcus*). Both alternatives, the conservation of *Physcus* Howard, 1895 (and *testaceus* Masi, 1910) by the suppression of *Coccobius annulicornis* Ratzeburg, 1852 (BZN **45**: 290; Proposal A), and placement of the names *Coccobius* and *annulicornis*, both of Ratzeburg, 1852, on Official Lists (BZN **46**: 133; Proposal B), were offered for voting. The first course involved the use of the plenary powers, but these were not required for the second course since it did not involve the suppression of names.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals. At the close of the voting period on 1 March 1991 the votes were as follows:

Proposal A — 6: Bock, Corliss, Hahn, Mahnert, Ride, Savage.

Proposal B — 20: Bayer, Cocks, Cogger, Dupuis, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Martins de Souza, Minelli, Mroczkowski, Nye, Schuster, Starobogatov, Thompson, Uéno, and Willink.

No vote was received from Nielsen.

Trjapitzin abstained without comment.

Voting for proposal A, Hahn commented: 'In the long period before 1983, *Physcus* was apparently in use instead of *Coccobius* and introduced in the literature of biological practice. Therefore, the re-introduction of *Coccobius* may indeed disturb the 'common use' in this literature'. Also voting for proposal A, Ride commented that if it failed to meet the required majority a new application should be made to conserve the specific name of the 'well-known species *Physcus testaceus* Masi, 1910, treated in a great number of papers' [BZN **47**: 135] by the suppression of the unused senior synonym *annulicornis* Ratzeburg, 1852.

Voting for proposal B, Martins de Souza commented that the designation of a neotype of the type species defines *Coccobius*, a name utilized by 30 authors and 24 references (BZN **47**: 137), so the senior name has been used as a valid name.

Original references

The following is the original reference to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

annulicornis, *Coccobius*, Ratzeburg, 1852, *Die Ichneumonen der Forstinsecten in forstlicher und entomologischer Beziehung*, vol. 3, p. 195.

Coccobius Ratzeburg, 1852, *Die Ichneumonen der Forstinsecten in forstlicher und entomologischer Beziehung*, vol. 3, p. 195.

The following is the reference for the designation of *Coccobius annulicornis* Ratzeburg, 1852 as the type species for the nominal genus *Coccobius* Ratzeburg, 1852:

Gahan, A.B. & Fagan, M.M., 1923. *Bulletin of the United States National Museum*, **124**: 37.

The following is the reference for the designation of the neotype of *Coccobius annulicornis*:

LaSalle, J. & Bouček, Z., 1989. BZN **46**: 133.

OPINION 1647

Heteronota pelagica Girard, 1857 (currently *Gymnodactylus*, *Cyrtodactylus* or *Nactus pelagicus*; Reptilia, Sauria): given precedence over *Gymnodactylus arnouxii* Duméril, 1851

Ruling

(1) Under the plenary powers the specific name *pelagica* Girard, 1875, as published in the binomen *Heteronota pelagica*, is hereby given precedence over the specific name *arnouxii* A. Duméril, 1851, as published in the binomen *Gymnodactylus arnouxii*, whenever the two names are considered to be synonyms.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *pelagica* Girard, 1857, as published in the binomen *Heteronota pelagica*, with the endorsement that it is to be given precedence over *arnouxii* A. Duméril, 1851, as published in the binomen *Gymnodactylus arnouxii*, whenever the two names are considered to be synonyms;

(b) *arnouxii* A. Duméril, 1851, as published in the binomen *Gymnodactylus arnouxii*, with the endorsement that it is not to be given priority over *pelagica* Girard, 1857, as published in the binomen *Heteronota pelagica*, whenever the two names are considered to be synonyms.

History of Case 2527

An application for the conservation of the specific name of *Heteronota pelagica* Girard, 1857 was received from Dr G.R. Zug (*National Museum of Natural History, Smithsonian Institution, Washington, D.C., U.S.A.*) on 19 July 1985. After considerable correspondence the case was published in BZN **46**: 38–40 (March 1989). Notice of the case was sent to appropriate journals.

A comment from Dr A.G. Kluge (*University of Michigan, Ann Arbor, U.S.A.*) opposing the application was published in BZN **46**: 46–48 (March 1989).

A comment from Prof Hobart M. Smith (*University of Colorado, Boulder, U.S.A.*) was noted on the voting paper: 'The current state of ferment in the taxonomy of the complex to which the names *arnouxii* and *pelagica* refer makes suppression of the former, as requested, premature. The nomenclature of the group is entering an era of upheaval that precludes maintenance of the stability once enjoyed before the complexity of its taxonomy was realized. It would nevertheless be unfortunate to see the name *arnouxii* replace completely the far more widely used name *pelagica*, if indeed they are regarded as conspecific, and at the same time it would be unfortunate to suppress *arnouxii* toward that end should it develop that it is based on a taxon different from *pelagica*. A compromise that might serve at least minimally the needs and concerns of both Zug and Kluge is a decree by the Commission simply that *arnouxii* should not be used as a senior synonym of *pelagica*, but that it remain available'.

It was noted on the voting paper that in Dr Kluge's comment 'sexual' [BZN **46**: 47, line 5] should read 'asexual', and that Drs Zug and Kluge agreed that both names, *arnouxii* A. Duméril, 1851 (with New Caledonia as the most likely type locality) and *pelagica* Girard, 1857 (with a type locality in Fiji), were based on parthenogenetic female specimens. It was also noted, in connection with Prof Smith's comment, that Dr C. Moritz and co-workers use *arnouxii* as a senior synonym of *pelagica* [see BZN **46**: 46–47]. Drs Zug and Kluge have pointed out that a number of junior synonyms are available, if required, for bisexual populations at present referred to by the names *arnouxii* or *pelagica*. Dr Kluge had added [BZN **46**: 47] that workers in the future may wish to separate the asexual populations in New Caledonia from those in Fiji and both names *arnouxii* and *pelagica* would then be needed.

Two alternatives, suppression of *arnouxii* (proposal B, published in BZN **46**: 39), and precedence of *pelagica* over *arnouxii* (proposal C), were offered for voting. Proposals B and C both involved the use of the plenary powers, and in proposal A the Commission was asked to vote on this; rejection of proposal A would have maintained the priority of the name *arnouxii*. Commissioners were invited to record a preference for B or C even if voting against A.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals. At the close of the voting period on 1 March 1991 the votes were as follows:

Proposal A. Affirmative votes — 20: Bayer, Bock, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Kabata, Kraus, Lehtinen, Mahnert, Minelli, Mroczkowski, Nielsen, Nye, Savage, Schuster, Starobogatov, Trjapitzin, Uéno

Negative votes — 8: Cocks, Heppell, Holthuis, Macpherson, Martins de Souza, Ride, Thompson and Willink.

Proposal B — 1: Trjapitzin.

Proposal C — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Uéno, Willink.

Having voted against proposal A, Thompson did not vote for proposals B or C. Although recording a vote for proposal C rather than B, Ride emphasized that he was not in favour of the Commission using its plenary powers in this case. He added: 'If as the result of the voting, the name *arnouxii* remains available the holotype should be replaced (following an application, preferably from Dr Kluge or Dr Moritz and co-workers) with appropriate modern material with good genetic and biochemical data and from a precise type locality. Until this is done, the situation vis-à-vis *pelagica* will remain unstable.'

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

arnouxii, *Gymnodactylus*, Duméril & Duméril, 1851, *Catalogue méthodique de la collection des reptiles du Muséum d'Histoire Naturelle de Paris*, p. 44.

pelagica, *Heteronota*, Girard, 1857, *Proceedings of the Academy of Natural Sciences of Philadelphia*, **9**: 197.

OPINION 1648

Micropterus patachonicus King, 1831 and *Anas pteneres* Forster, 1844 (both currently in *Tachyeres* Owen, 1875; Aves, Anseriformes): specific names conserved

Ruling

(1) Under the plenary powers the specific name *patachonica* King, 1828, as published in the binomen *Oidemia patachonica*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *pteneres* Forster, 1844, as published in the binomen *Anas pteneres*;

(b) *patachonicus* King, 1831, as published in the binomen *Micropterus patachonicus*.

(3) The name *patachonica* King, 1828, as published in the binomen *Oidemia patachonica* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2673

An application for the conservation of the specific names of *Micropterus patachonicus* King, 1831 and *Anas pteneres* Forster, 1844 was received from Dr B.C. Livezey (*Museum of Natural History, University of Kansas, Lawrence, U.S.A.*) on 25 July 1988. After correspondence the case was published in BZN **46**: 181–184 (September 1989). Notice of the case was sent to appropriate journals. No comments were received.

The suppression of the specific name of *Oidemia patachonica* King, 1828 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy conserves the junior subjective synonym *Anas pteneres* Forster, 1844 (currently *Tachyeres pteneres*). This suppression thereby prevents the specific name *patachonica* King, 1828 being a senior secondary homonym of *Micropterus patachonicus* King, 1831 when (as is the case) both taxonomic species concerned are placed in *Tachyeres* Owen, 1875.

Decision of the Commission

On 1 September 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 182–183. At the close of the voting period on 1 December 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No vote was received from Halvorsen.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

patachonica, Oidemia, King, 1828, *Zoological Journal (London)*, **4**: 100.

patachonicus, Micropterus, King, 1831, *Proceedings of the Committee of Science and Correspondence of the Zoological Society of London*, **1**: 14.

pteneres, Anas, Forster, 1844, *Descriptiones Animalium quae in itinere ad Maris Australis Terras per annos 1772, 1773 et 1774 suscepto collegit*, p. 338.

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INSTRUCTIONS TO AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Recent parts of the *Bulletin* should be consulted as examples.

Title. This should be written in lower case letters and include the names to be conserved. A specific name should be cited in the original binomen, with the current name in parentheses.

Author's name. Full postal address should be given.

Abstract. This will be prepared by the Commission's Secretariat.

Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals. Text references should give dates and page numbers in parentheses, e.g. 'Daudin (1800, p. 39) described . . . '.

References. These should be given for all authors cited. The title of periodicals should be in full and be underlined; numbers of volumes, parts, etc. should be in arabic figures, separated by a colon from page numbers. Book titles should be underlined and followed by the number of pages, the publisher and the place of publication.

Submission of application. Two copies should be sent to: The Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time that it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in ASCII text on IBM PC format 5.25 inch 360KB (preferable) or 1.2MB, or 3.5 inch 1.4MB floppy disk. Disks will be returned after copying. It would also be helpful if applications were accompanied by photocopies of relevant pages of the main references.

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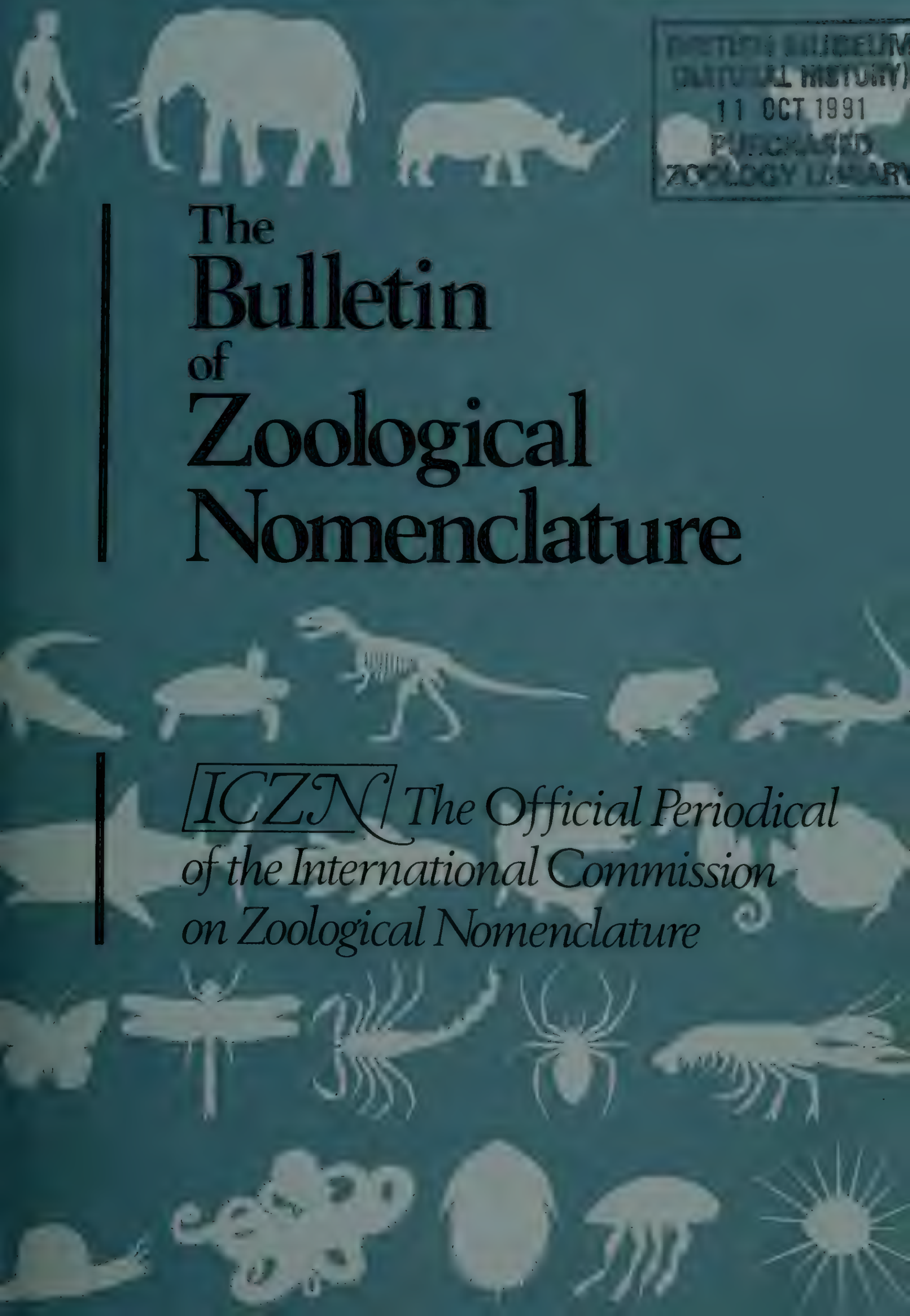

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on Zoological Nomenclature

THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 48, part 3 (pp. 189–280) 30 September 1991

Notices

(a) *Invitation to comment.* The Commission is authorised to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after their publication, but this period is normally extended to enable comments to be submitted. Any zoologist who wishes to comment on any of the applications is invited to send his contribution to the Executive Secretary of the Commission as quickly as possible.

(b) *Invitation to contribute general articles.* At present the *Bulletin* comprises mainly applications concerning names of particular animals or groups of animals, resulting comments and the Commission's eventual rulings (Opinions). Proposed amendments to the Code are also published for discussion.

Articles or notes of a more general nature are actively welcomed provided that they raise nomenclatural issues, although they may well deal with taxonomic matters for illustrative purposes. It should be the aim of such contributions to interest an audience wider than some small group of specialists.

(c) *Receipt of new applications.* The following new applications have been received since going to press for volume 48, part 2 (published on 27 June 1991). Under Article 80 of the Code, existing usage is to be maintained until the ruling of the Commission is published.

(1) CAECILIIDAE Rafinesque-Schmaltz, 1814 (Amphibia, Gymnophiona): proposed conservation by the revocation of Opinion 1462. (Case 2333). M.H. Wake, A. Dubois, D. Frost, T.E. Moore & R.A. Nussbaum.

(2) *Pseudoxyrhopus* Günther, 1881 (Reptilia, Serpentes): proposed conservation. (Case 2814). H.M. Smith, K.L. Williams, V. Wallach & D. Chiszar.

(3) *Graptolithus clintonensis* (currently *Monograptus clintonensis*; Graptolithina): proposed attribution to Hall, 1852, and designation of a lectotype. (Case 2815). D.K. Loydell.

(4) *Catharacta skua lonnbergi* (Mathews, 1912) (Aves, Charadriiformes): proposed precedence over *C. skua madagascariensis* (Bonaparte, 1857). (Case 2816). J.-F. Voisin, W.J. Bock, M. Théry & C. Voisin.

(5) PYCNONOTIDAE Gray, 1840 (Aves, Passeriformes) and IXODIDAE C.L. Koch, 1844 (Arachnida, Acari): proposed conservation. (Case 2817). W.J. Bock & J.E. Keirans.

(6) TYLINAE Dana, 1852 (Crustacea, Isopoda) and TYLIDAE Oberholser, 1917 (Aves, Passeriformes): proposed removal of the homonymy. (Case 2819). W.J. Bock.

(7) *Turbo politus* Linnaeus, 1758 (currently *Melanella polita*) and *Buccinum acicula* Müller, 1774 (currently *Cecilioides acicula*) (Mollusca, Gastropoda): proposed conservation of the specific names. (Case 2820). A. Warén.

(8) *Rana megapoda* Taylor, 1942 (Amphibia, Anura): proposed conservation of the specific name. (Case 2821). R.G. Webb.

(9) *Holostilpna* Jordan, 1907 (Insecta, Coleoptera): proposed designation of *Euxenus jordani* Valentine, 1991 as the type species. (Case 2822). B.D. Valentine.
(10) *Acineta tuberosa* Ehrenberg, 1833 (Ciliophora, Suctoria): proposed conservation of the specific name. (Case 2823). I.V. Dovgal & Ya. I. Starobogatov.
(11) *Calanus sinicus* Brodsky, 1962 (Crustacea, Copepoda): proposed conservation of the specific name. (Case 2824). K. Hulsemann.
(12) *Pachyrhynchus* Germar, 1824, *Somatodes* Schönherr, 1840 and the specific name of *P. moniliferus* Germar, 1824 (Insecta, Coleoptera): proposed conservation. (Case 2825). R.T. Thompson.

(d) *Ruling of the Commission.* Each Opinion, Declaration or Direction published in the *Bulletin* constitutes an official ruling of the International Commission on Zoological Nomenclature, by virtue of the votes recorded, and comes into force on the day of publication of the *Bulletin.*

The International Code of Zoological Nomenclature

The Third Edition (published 1985) supersedes all earlier versions and incorporates many changes.

Copies may be ordered from The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £19 or $35 (postage included) or from the American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington, D.C. 20560 U.S.A. Price $35 ($32 to members of A.A.Z.N.). Payment should accompany orders.

Official Lists and Indexes of Names and Works in Zoology — Second Supplement to 1990

The Official Lists and Indexes of Names and Works in Zoology was published in 1987. This book gives details of all the names and works on which the Commission has ruled since it was set up in 1895 up to 1985. There are about 9,900 entries.

In the five years 1986–90, 946 names and five works have been added to the Official Lists and Official Indexes. A supplement has been prepared giving these additional entries, together with some amendments and updatings to entries in the 1987 volume. This supplement was circulated to all subscribers to the *Bulletin of Zoological Nomenclature* with Vol. 48, Part 1 of the *Bulletin.* Copies can be obtained without charge from either of the following addresses, from which the *Official Lists and Indexes* can also be ordered at the price shown (postage included). Payment should accompany orders.

The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £60 or $110
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The American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington D.C. 20560, U.S.A. Price $110 ($100 to members of A.A.Z.N.).

Bulletin of Zoological Nomenclature — Crustacea and Mollusca Offprints

The International Trust for Zoological Nomenclature is offering a subscription for individual zoologists wishing to receive offprints of all cases in particular disciplines. For an annual payment of £15 or $25 subscribers will receive copies of all Applications, Comments and Opinions relating to either the Crustacea or Mollusca as soon as they are published in the *Bulletin of Zoological Nomenclature*. Offprints are available back to 1980.

Orders for offprints relating to either the Crustacea or the Mollusca should be sent to I.T.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K., with payment at the rate of £15 or $25 for each year requested.

Case 2710

CLAVIDAE McCrady, 1859 (Cnidaria, Hydrozoa) and CLAVINAE Casey, 1904 (Mollusca, Gastropoda): proposal to remove the homonymy

Walter O. Cernohorsky
6 Rapallo Place, Farm Cove, Pakuranga, Auckland 6, New Zealand

Paul F.S. Cornelius
Department of Zoology, The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Alexander V. Sysoev
Laboratory of Helminthology, Academy of Sciences of the U.S.S.R., Lenin Avenue 33, 117071 Moscow-71, U.S.S.R.

Abstract. The purpose of this application is to remove the homonymy between the family-group names CLAVIDAE McCrady, 1859 (Cnidaria) and CLAVINAE Casey, 1904 (Mollusca). Both names are in use. It is proposed that the molluscan name, which is used for a subfamily, be altered to CLAVUSINAE by changing the stem of the type genus *Clavus* from Clav- to Clavus-.

---

1. The genus *Clava* Gmelin, 1791 (p. 3131) (Cnidaria) was established on the single species *Clava parasitica* Gmelin, 1791 (a junior subjective synonym of *Hydra multicornis* Forsskål, 1775 (p. 131; 1776, pl. 26B, 26b); see Bedot, 1901, p. 436; 1905, p. 60; Edwards & Harvey, 1975, p. 885). The spelling 'Forsskål' has been adopted for the author's name; it was misspelt with one 's' by Niebuhr when he published Forsskål's works posthumously (see BZN **22**: 9). *Clava* Gmelin, 1791 is a junior homonym of *Clava* Martyn, 1784 (vol. 1, pl. 12; Mollusca, Gastropoda, CERITHIIDAE). However, Martyn's (1784) work was rejected by the Commission as being non-binominal (Opinion 456, March 1957) and *Rhinoclavis* Swainson, 1840 has been adopted in the place of *Clava* Martyn (Houbrick, 1987, p. 3; Vaught, 1989, p. 28).

2. *Clava multicornis* (Forsskål, 1775) is one of the commonest European and eastern North American (and reportedly also the west coast) intertidal hydroids. It is large and pink and grows over algae mid-shore; it is also extremely tolerant of brackish conditions. There is no medusa stage (Edwards & Harvey, 1975). The genus is very well known and the name has appeared in many works (see para. 3 below); it occurs sufficiently often to feature in field guides for amateur use (see, for example, Barrett & Yonge, 1958, p. 48, fig. 10, pl. 2g, h; Eales, 1961, p. 33).

3. The family CLAVIDAE (Cnidaria, Hydrozoa) was established by McCrady (1859, pp. 123, 139) based on *Clava* Gmelin, 1791. The dating of McCrady's publication is acknowledged to be problematic (see Russell, 1953, p. 502) and the family-group name has been cited by subsequent authors from 1857, 1858 or 1859. McCrady's paper was presented to members of the Elliott Society of Natural History, Charleston, South Carolina at a meeting on 15 April 1857. It was published, together with other papers

which had been read between November 1853 and December 1858, in vol. 1 of the *Proceedings of the Elliott Society of Natural History of Charleston, South Carolina* in 1859. There is evidence, however, to show that the proceedings of the Elliott Society were published piecemeal earlier than their inclusion in the 1859 volume, and that at least part of McCrady's work appeared earlier, in 1857. Since it is not known which part appeared before 1859 we have adopted the date 1859 for McCrady's work.

4. Several genera other than *Clava* Gmelin of both hydroids and medusae, some widespread, are also currently grouped in the family CLAVIDAE McCrady. The family-group name has been in regular use since at least 1868 and has been adopted in papers, journals and several benchmark monographs. Authors include Hincks, 1868, p. 1 (U.K.); Fraser, 1944, p. 33 (North America); Russell, 1953, p. 114 (U.K.); Naumov, 1960, p. 179 (U.S.S.R.); Millard, 1975, p. 69 (South Africa); Werner, 1984, p. 168 (world-wide); Bouillon, 1985, pp. 47, 49 (world-wide); Calder, 1988, p. 5 (Bermuda); Cornelius & Ryland, 1990, p. 118 (north west Europe). The family-group name CLAVIDAE McCrady, 1859 has thus been firmly entrenched in hydrozoan nomenclature for over 120 years. A mandatory respelling of the name would cause great confusion to hydrozoan specialists, and innumerable general intertidal biologists, for a long time. The hydrozoan superfamily name CLAVOIDEA was introduced by Petersen in 1979 (p. 131) and was adopted by Bouillon (1985, pp. 37, 47).

5. The family-group name CLAVINAE (Mollusca) was established by Casey, 1904 (p. 158, published as the tribe CLAVINI) within the family TURRIDAE Swainson, 1840, based on *Clavus* de Montfort, 1810 (pp. 434 (fig.), 435). The subfamily CLAVINAE is a very large family-group, including about 25 Recent genera and subgenera and more than 100 species which are widely distributed and at times abundant in occurrence. They have a world-wide paleontological record dating back to the Cretaceous, and usually occur abundantly in all strata. The name CLAVINAE has been in consistent usage in the Recent and fossil malacological literature as a subfamily of the TURRIDAE and has appeared in the following representative works: Powell, 1942, pp. 29, 32, 84; 1966, p. 70; Laseron, 1954, pp. 4, 16; McLean, 1971, p. 116; Abbott, 1974, p. 269; Maes, 1983, p. 310. The subfamily name has been erroneously ascribed to Powell (1942) by some authors (see Cernohorsky, 1972, p. 127).

6. In 1985 Cernohorsky (p. 60) suggested that the junior homonym CLAVINAE Casey, 1904 (Mollusca) should be replaced by the next available family-group name, DRILLIINAE Morrison, 1966. (The authorship of the name DRILLIINAE was later amended to Olsson (1964) by Cernohorsky, 1987, p. 133). This name was subsequently used instead of CLAVINAE by some authors (Kilburn, 1988, pp. 168, 172; Wells, 1990, pp. 74, 75). However, although DRILLIINAE is at present considered to be a synonym of CLAVINAE, future research may prove the two groups to be biologically and taxonomically distinct.

7. Removal of the homonymy between the hydrozoan and molluscan family-group names would allow the retention of a family-group name based on *Clavus* and so restore stability in molluscan nomenclature. The problem would be solved with the least confusion by altering the junior, molluscan family-group name to CLAVUSINAE by including all the letters of the generic name (*Clavus*) in the name (Article 55b(ii) of the Code).

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that for the purposes of Article 29 the stem of the generic name *Clavus* de Montfort, 1810 is Clavus-;

(2) to place the following names on the Official List of Generic Names in Zoology:
  (a) *Clava* Gmelin, 1791 (gender: feminine), type species by monotypy *Clava parasitica* Gmelin, 1791 (a junior subjective synonym of *Hydra multicornis* Forsskål, 1775);
  (b) *Clavus* de Montfort, 1810 (gender: masculine), type species by original designation *Clavus flammulatus* de Montfort, 1810;

(3) to place the following names on the Official List of Specific Names in Zoology:
  (a) *multicornis* Forsskål, 1775, as published in the binomen *Hydra multicornis* (senior subjective synonym of the specific name of *Clava parasitica* Gmelin, 1791, the type species of *Clava* Gmelin, 1791);
  (b) *flammulatus* de Montfort, 1810, as published in the binomen *Clavus flammulatus* (specific name of the type species of *Clavus* de Montfort, 1810);

(4) to place the following names on the Official List of Family-Group Names in Zoology:
  (a) CLAVIDAE McCrady, 1859, type genus *Clava* Gmelin, 1791;
  (b) CLAVUSINAE Casey, 1904, type genus *Clavus* de Montfort, 1810 (spelling emended in (1) above);

(5) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name CLAVINAE Casey, 1904 (spelling emended to CLAVUSINAE in (1) above).

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Case 2766

Conus fulmen Reeve, 1843 (Mollusca, Gastropoda): proposed conservation, and *Conus berghausi* Michelotti, 1847: proposed precedence over *C. demissus* Philippi, 1836

A. J. Kohn

Department of Zoology, University of Washington, Seattle, Washington 98195, U.S.A.

Abstract. The purpose of this application is the conservation of the specific name of *Conus fulmen* Reeve, 1843 by the suppression of its unused senior subjective synonym *C. modestus* Sowerby, [1833], and the conservation of *C. berghausi* Michelotti, 1847 by giving the name precedence over *C. demissus* Philippi, 1836. The species are marine prosobranch gastropods.

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1. Sowerby introduced the nominal Recent species *Conus modestus* in Part 28 of *The conchological illustrations*, published [10 May 1833] (for dates of publication see Shaw, 1909, p. 333 and Sherborn, 1909, pp. 331–332). The name is accompanied only by an illustration of the specimen (*Conus*, fig. 19 of Part 28), but is available under Article 12b(7) of the Code. In the index to *The conchological illustrations*, Sowerby (*Conus*, p. 1, 1841) added the phrase 'perhaps a variety of *cinereus*', but the figured specimen appears not to be conspecific with that species (*Conus cinereus* Hwass in Bruguière, 1792, p. 673). Later, Sowerby (1858, p. 53) provisionally synonymized *C. modestus* under *C. fulmen* Reeve, 1843 (*Conus*, species no. 215, pl. 39, fig. 215). This assignment is correct, as the figure in *The conchological illustrations* clearly shows a specimen of *C. fulmen* Reeve, 1843.

2. The name *C. modestus* has not subsequently been applied to the species generally known as *C. fulmen* Reeve, 1843 nor to any other species of *Conus*. To my knowledge, the former name has not appeared at all in the literature during the past 50 years. Since the holotype of *C. modestus* is apparently not extant no further taxonomic information concerning this nominal species can come to light, and I suggest that the long disused name be suppressed in order to conserve *C. fulmen*. The following authors have cited the species as *Conus fulmen* Reeve, 1843 during this period: Hirase & Taki (1951); Kira (1959, 1962); Biological Laboratory, Imperial Household (1971); Kuroda, Habe & Oyama (1971); Marsh (1964); Yoo (1976); Walls [1979]; Coomans, Moolenbeek & Wils (1983) and Okutani (1967).

3. Philippi (1836, p. 239) proposed the species *Conus demissus* for a Miocene or Pliocene fossil which he collected during field-work (1829–1833) at Siracusa, Sicily. The year before Philippi's publication, Grateloup (1835, p. 110) had described what is apparently the same species, from the Miocene of the Adour Basin of France. *C. maculosus* Grateloup, 1835 is however a junior primary homonym of *C. maculosus* Sowerby, [1833] (part 24, figs. 3, 3*) and a junior secondary homonym of *Cucullus maculosus* [Röding], 1798 (p. 48). The next available name for this species appears to

be *Conus berghausi* Michelotti, 1847 (p. 342); the patronymic refers to J.P. Berghaus, the artist who rendered Michelotti's plates. Fischer & Tournouër (1873, p. 127) and Locard (1877, p. 64) recognized that *C. maculosus* Grateloup, 1835 and *C. berghausi* Michelotti, 1847 were synonymous.

4. In vol. 2 of his *Enumeratio Molluscorum Siciliae*, Philippi (1844, p. 200) repeated the original description of *C. demissus* and illustrated his specimen (pl. 28, fig. 22). The type specimen is in the Museum der Natur of the Humboldt-Universität in Berlin. The type specimen of *C. maculosus* Grateloup, 1835 is in the Université Claude-Bernard in Bordeaux. The type specimen of *C. berghausi* Michelotti, 1847 is in the Museum of the Istituto di Geologia, University of Turin; the specimen number is BS.038.01.018.

5. I have noted only two literature citations of *C. demissus* Philippi during the past 50 years: in a footnote, Hall (1966, p. 151) stated 'Note that *Conus demissus* Philippi, 1836, 1844, resembles in some ways this species [*C. mucronatolaevis* Sacco, 1893]. Further investigation may prove *C. eschwegi* is a synonym of Philippi's species'. Greco & Lima (1974) included it in their annotated list of Sicilian Pliocene and Pleistocene molluscs. They cited no references to the species other than Philippi's original description.

6. Davoli (1972) carried out a detailed morphometric comparison of *C. berghausi* and *C. eschwegi* Da Costa (1866, p. 29) using 260 specimens of each species. The type specimen of *C. demissus* Philippi, 1836 agrees with the former, but not the latter, in all respects. I thus conclude that *C. demissus* Philippi, 1836 is a synonym of *C. berghausi* Michelotti, 1847.

7. The following authors have cited *C. berghausi* Michelotti, 1847 as a valid species during the past 50 years: Csepreghy-Meznerics (1954), Korobkov (1955), Glibert (1952, 1960), Sieber (1958), Kojumdgieva & Strachimirov (1960), Hall (1966), Strausz (1966), Davoli (1972), Ferrero Mortara, Montefamiglio, Novelli, Opesso, Pavia & Tampieri (1984).

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
    (a) to suppress the specific name *modestus* Sowerby, [1833], as published in the binomen *Conus modestus*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
    (b) to rule that the specific name *berghausi* Michelotti, 1847, as published in the binomen *Conus berghausi*, is to be given precedence over the name *demissus* Philippi, 1836, as published in the binomen *Conus demissus*, whenever the two names are considered to be synonyms;
(2) to place on the Official List of Specific Names in Zoology the following names:
    (a) *fulmen* Reeve, 1843, as published in the binomen *Conus fulmen*;
    (b) *berghausi* Michelotti, 1847, as published in the binomen *Conus berghausi*, with the endorsement that it is to be given precedence over the name *demissus* Philippi, 1836, as published in the binomen *Conus demissus*, whenever the two names are considered to be synonyms;
    (c) *demissus* Philippi, 1836, as published in the binomen *Conus demissus*, with the endorsement that it is not to be given priority over *berghausi* Michelotti, 1847, as published in the binomen *Conus berghausi*, whenever the two names are considered to be synonyms;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *modestus* Sowerby [1833], as published in the binomen *Conus modestus* and as suppressed in (1)(a) above.

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Case 2805

Ptychagnostus Jaekel, 1909 and *Glyptagnostus* Whitehouse, 1936 (Trilobita): proposed conservation of accepted usage

J.H. Shergold & J.R. Laurie

Bureau of Mineral Resources, Post Office Box 378, Canberra, ACT 2601, Australia

Abstract. The purpose of this application is to conserve in their accepted usage the generic names of two Cambrian trilobites, *Ptychagnostus* Jaekel, 1909 and *Glyptagnostus* Whitehouse, 1936. Through an original printing error *Ptychagnostus* could be interpreted in a manner different from that currently accepted and that interpretation would impinge on the concept of *Glyptagnostus*.

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1. In 1909 Jaekel wrote a paper *Über die Agnostiden* in which he described a number of new genera. His paper was published in Volume 61 of *Zeitschrift der Deutschen Geologischen Gesellschaft. Abhandlungen*. The first 21 pages (pp. 380–400) of his paper were printed in Part 3 of the volume and the final page (p. 401) was carried over to Part 4. However, it is clear that a printing error occurred since there is a non-sequitur between pages 399 and 400. As it stands, text of the genus *Agnostus* with its listed species (p. 399) runs into text (p. 400) listing another group of species belonging to a genus which has as its designated type *Agnostus punctuosus* Angelin, 1852 (p. 8) sensu Tullberg, 1880. This second group of species includes *Agnostus reticulatus* Angelin, 1852 (p. 8) which is illustrated (p. 400, fig. 19) as representative of this group. The figure is entitled '*Ptychagnostus reticulatus* Ang. nach Tullberg'; this is the first mention of the generic name *Ptychagnostus*. The first four lines on page 401 read '*Ptychagnostus* n.g. Mit doppelten Nebenloben des Kopfschildes und radialen Falten oder unregelmässigen Höckern auf den Genae und meist nach den Pleuren des Schwanzschildes'. These four lines should have been printed at the top of page 400.

2. Acceptance of the text as printed would have the following implications:

(a) *Ptychagnostus* would belong to the family LEIAGNOSTIDAE Jaekel, 1909; this was clearly not intended since it would place a highly scrobiculate (pitted) and 'en grand tenue' (strongly ornamented) species in a family that is characterised by effacement (non-ornamentation) (see Rushton, 1966, p. 35).

(b) *Ptychagnostus reticulatus* Angelin would be the type species of *Ptychagnostus* by monotypy. Vogdes (1917, p. 44) cited *P. reticulatus* as the type species, although, as pointed out by Robison (1984, p. 12), Vogdes later changed his mind and (1925, p. 111) ascribed *Agnostus punctuosus* as the type species.

(c) As pointed out by Morris (1988, p. 195), *Glyptagnostus* Whitehouse, 1936 (p. 101) would 'become a junior subjective synonym of *Ptychagnostus* and the genus group formerly accepted as *Ptychagnostus* would require a replacement name'. *Glyptagnostus* is based on *G. toreuma* Whitehouse, 1936 (p. 102), shown by Westergård (1947, p. 5) to be synonymous with *Agnostus reticulatus* Angelin (= *Ptychagnostus reticulatus* sensu Jaekel, 1909) (see discussion in Kobayashi (1949, p. 1), Öpik (1961a, p. 428; 1961b, p. 76; 1963, p. 38), Palmer (1962, p. 15), Shergold (1982, p. 23)).

3. The current concept and established usage of the nominal genera *Ptychagnostus* and *Glyptagnostus* are based upon acceptance that the type species of *Ptychagnostus* is *Agnostus punctuosus* (e.g. Harrington et al., 1959, p. 179; Robison, 1984, p. 12; Laurie, 1988, p. 171; Shergold, Laurie & Sun, 1990, p. 39). This application is designed to stabilise this usage.

4. Another complication arising from the split of Jaekel's paper relates to the date of publication of p. 401 which is printed as the first page of vol. 61, part 4 (for October, November and December 1909). However, Morris (1988, p. 195) asserts that p. 401 was published in 1910 but does not give any evidence. His claim appears to be based on the library accessions list printed on p. 483 and said to be for the year 1909, on the membership list of the Deutsche geologische Gesellschaft for 1 January 1910 printed on p. 494 of part 4 and on the date stamp of 16 February 1910 for receipt of the part at the British Museum (Natural History). On the other hand, some evidence for publication of p. 401 in 1909 is provided by the title sheet for the entire volume which was issued with part 4 and bears the legend 'Berlin 1909', in contrast to that for the subsequent volume (vol. 62 for 1910) which reads 'Berlin 1911'. In addition to the generic description of *Ptychagnostus*, there are three new taxa established on p. 401 (*Miagnostus*, *Leiagnostus* and *Leiagnostus erraticus*) which have always been attributed to 1909. In view of the uncertain nature of Morris's evidence and the complication that would be created by acceptance of 1910 as the publication date for p. 401, it is desirable for the Commission to rule that it be taken as published in the same year as the preceding 21 pages of the same paper.

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the paper *Über die Agnostiden* by Jaekel be treated:
   (a) as though printed so that the definition of *Ptychagnostus* on p. 401 appeared at the top of p. 400;
   (b) as having been published in its entirety in 1909;

(2) to confirm that the type species of *Ptychagnostus* Jaekel, 1909 is *Agnostus punctuosus* Angelin, 1852 by original designation;

(3) to place on the Official List of Generic Names in Zoology the following names:
   (a) *Ptychagnostus* Jaekel, 1909 (gender: masculine), type species by original designation *Agnostus punctuosus* Angelin, 1852 by original designation as confirmed in (2) above;
   (b) *Glyptagnostus* Whitehouse, 1936 (gender: masculine), type species by original designation *Glyptagnostus toreuma* Whitehouse, 1936;

(4) to place on the Official List of Generic Names in Zoology the following names:
   (a) *punctuosus* Angelin, 1851 as published in the binomen *Agnostus punctuosus* (specific name of the type species of *Ptychagnostus* Jaekel, 1909);
   (b) *toreuma* Whitehouse, 1936 as published in the binomen *Glyptagnostus toreuma* (specific name of the type species of *Glyptagnostus* Whitehouse, 1936);

(5) to place on the Official List of Works Approved as Available for Zoological Nomenclature *Über die Agnostiden* by O. Jaekel (1909).

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Case 2778

Asaphus eichwaldi Fischer von Waldheim in Eichwald, 1825 (currently *Paladin eichwaldi*; Trilobita): proposed conservation of neotype designation

Gerhard Hahn

Institut für Geologie und Paläontologie, Philipps-Universität, Hans-Meerwein-Strasse, D-3550 Marburg, Germany

Abstract. The purpose of this application is the conservation of the specific name of the Lower Carboniferous trilobite *Asaphus eichwaldi* Fischer von Waldheim in Eichwald, 1825 in its current usage. This would be achieved by confirmation of Osmólska's (1970) neotype designation, although this differs from Fischer von Waldheim's original definition.

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1. In 1825 Fischer von Waldheim established two trilobite species from the Lower Carboniferous (Viséan) of the Moscow Basin in the region of Wereja (= Vereya). These nominal species were *Asaphus Brogniarti* (p. 54) (printed by what appears to be a lapsus calami as *Asaphus Brogniarty* on p. 58 in the plate explanation for pl. 4, fig. 5) and *Asaphus Eichwaldi* (pp. 54–55, pl. 4, fig. 4). Each species was represented only by a single isolated pygidium. The illustrations were poor, but showed that the pygidium of *A. brogniarti* was relatively long and triangular in shape, whereas that of *A. eichwaldi* was short and rounded. The specimens were housed in the St. Petersburg 'Bergakademie' (now the Tshernyshev's Museum in Leningrad); no catalogue numbers were given. In his paper Fischer von Waldheim several times (e.g. p. 30) referred to the scientist Brongniart, but in all cases spelt his name 'Brogniart'. Under Article 32c(ii) of the Code the nominal species *brogniarti* cannot be considered to be an incorrect original spelling. These two nominal species, *Asaphus brogniarti* and *A. eichwaldi*, are the oldest now nomenclaturally available for Carboniferous trilobites, although the name *brogniarti* (or *brongniarti*) Fischer von Waldheim has not been in use in the 20th century.

2. Despite the different shape of their pygidia, Fischer von Waldheim later (1837, p. 121) synonymized his two 1825 species under the name *A. eichwaldi*. He preferred this name 'd'autant plus qu'un autre Trilobite porte déjà le nom de Brongniart'; in this he was referring to the Ordovician species *Asaphus* [now *Eohomalonotus*] *brongniartii* Delongchamp, 1825 (see Goldfuss, 1843, p. 562). In his 1837 paper Fischer von Waldheim did not refer to the nominal species *brogniarti*, but did use the spelling Brongniart for the name that he had spelt Brogniart in his 1825 paper.

3. Eichwald (1867, pp. 204–205, 208–209) referred to the two nominal species *Asaphus brongniarti* [sic] and *A. eichwaldi* and said that the type specimens could not be found in St. Petersburg. They have not been located since.

4. Woodward (1883), in his important monograph on Carboniferous trilobites, separated the two species *eichwaldi* and *brongniarti* [sic]. He placed *eichwaldi* in *Phillipsia* (pp. 22–23, pl. 4, figs. 2, 4–11, 13, 14). He placed *brongniarti* also in *Phillipsia*

and (pp. 35–36, pl. 6, fig. 12) synonymized it under *Griffithides obsoletus* Phillips, 1836. He justified giving priority to Phillips's 1836 name by saying 'it seems clearly undesirable to revive a specific name which its author had already cancelled, and to apply it to a form which certainly cannot be correlated with that originally intended to be described under the defunct name'. Woodward inverted the names assigned by Fischer von Waldheim (1825), naming as *eichwaldi* the species with the long, triangular pygidium and considering the species with the short, rounded pygidium to be '*brongniarti*' (i.e. *obsoletus*). This incorrect assignment of *eichwaldi* has been followed by all subsequent authors. For example, Weber (1937, pp. 63, 134) in his description of the Carboniferous trilobites of the U.S.S.R. discussed *Phillipsia* (*Griffithides*?) *eichwaldi* sensu Woodward and figured (pl. 7, figs. 15–17) three pygidia similar to Fischer von Waldheim's concept of *Asaphus brogniarti* but distinct from his concept of *Asaphus eichwaldi*. Today the name *Paladin eichwaldi* is given to the species with a long, triangular pygidium composed of many segments.

5. Osmólska (1970, p. 130) designated as neotype of *Paladin eichwaldi* one of the three pygidia figured by Weber (1937), i.e. the one figured by him in pl. 7, fig. 15 which she refigured (pl. 17, fig. 17). This specimen is registered TML 1557/5107 in the Tshernyshev's Museum, Leningrad. However, it is possible that Osmólska mixed up the specimens since she indicated a different registration number, 1551/5107, and her figure differed in some details from Weber's. Osmólska's neotype designation stabilized the nominal species *Paladin eichwaldi* in its current usage, but did not meet the Code's qualifying conditions for a neotype designation in two respects. Article 75d(4) of the Code requires evidence that the neotype is consistent with the former name-bearing type, but Osmólska's neotype corresponded with *Asaphus eichwaldi* sensu Woodward and not with Fischer von Waldheim's original concept. Article 75d(5) requires evidence that the neotype came as nearly as practicable from the original type locality and geological horizon, but Osmólska's neotype came from the region of the River Vol in the Timan Mountains in the north of Russia whereas the original type locality was in the Moscow Basin. It follows that Osmólska's neotype designation is of questionable validity and it is necessary for the Commission to confirm it.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to confirm that the specific name *eichwaldi* Fischer von Waldheim in Eichwald, 1825, as published in the binomen *Asaphus eichwaldi*, is to be interpreted by reference to the specimen designated as neotype by Osmólska (1970);

(2) to place on the Official List of Specific Names in Zoology the name *eichwaldi* Fischer von Waldheim in Eichwald, 1825, as published in the binomen *Asaphus eichwaldi*, and defined by the neotype designation by Osmólska (1970) as confirmed in (1) above.

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Case 2671

J.C. Megerle's (1801–1805) auction catalogues of insects: proposed suppression, with conservation of the specific names of *Saperda alboguttata* Megerle, 1803 (now in *Apomecyna*) (Coleoptera) and *Hippobosca variegata* Megerle, 1803 (Diptera)

I.M. Kerzhner

Zoological Institute, Academy of Sciences, Leningrad 199034, U.S.S.R.

Abstract. It is proposed that the extremely rare and usually neglected publications by Megerle (1801–1805) entitled *Catalogus Insectorum* and *Appendix ad catalogum insectorum* be ruled to be unavailable. Despite this, the conservation is recommended of two specific names, those of *Apomecyna alboguttata* (Megerle, 1803) (Coleoptera, CERAMBYCIDAE) and *Hippobosca variegata* Megerle, 1803 (Diptera, HIPPOBOSCIDAE).

1. Johann Carl Megerle (1765–1840; from 1803 Megerle von Mühlfeld) worked as collection curator in the Wiener Hofmuseum (now the Naturhistorisches Museum, Vienna). He organized an 'Auctionsinstitut' (1798–1806) for selling by auction naturalia, especially insects. Eleven catalogues of insects (and some other arthropods) published by Megerle for these auctions are known (Schenkling, 1935).

2. The only known complete set of these catalogues is in the entomological library of the Eberswalde branch of the German Institute for Plant Protection (former library of the Deutsches Entomologisches Institut). Photocopies of this Eberswalde set are in the library of the U.S. Department of Agriculture, Washington, D.C., and another (kindly sent by Dr H.J. Müller) is in the Zoological Institute, Leningrad.

3. Megerle's catalogues contain about 290 new specific names and at least three new generic names, most of them in Coleoptera (see Table on following page), which are formally available. They also contain a number of misspelled names; one such misspelling (*Jasus* for *Iassus* Fabricius, 1803) was placed on the Official Index of Rejected and Invalid Generic Names (Opinion 612, 1961).

4. In the catalogues the names of European species are printed in normal type and those of exotic species in italics. About 50 new species are European; their distribution is not indicated, except for species from Russia. The new exotic species are from Bengal, U.S.A. (Georgia), Australia ('Nova Hollandia'), etc., but for many of them the distribution is not given. Megerle (abbreviated to 'M.') is indicated as author of most new taxa, but some names are credited by him to Preyssler, Schreibers, Hellwig, Ziegler and others.

5. All the diagnoses are short, often in abbreviated words. Some examples are: 'parva', 'min. bifronti', 'med. inter arvens. et sylvestr.', 'Med. nig. flav. vari. Ali, aqu. post. mac. fusc. per. lin. flav. divis. et flav. nervos.', and 'F. 51 β' (which means Fabricius, *Entomologia Systematica*: *Tenthredo* species 51, var. β). Some of Megerle's type specimens are in the Vienna Museum (Thompson, 1988), and others may be found

		New specific names										New generic names	
Megerle Catalogue	Date of auction	Coleoptera	Odonata	Orthoptera	Homoptera	Heteroptera	Neuroptera	Hymenoptera	Diptera	Lepidoptera	Scorpionida	Coleoptera	Homoptera
(1801)	14.xii.1801	—	—	—	—	—	—	1	—	—	—	—	—
(1802a)	12. iv.1802	1	—	—	—	—	—	—	—	—	—	—	—
(1802b)	9. xi.1802	23	—	—	—	—	—	1	—	—	—	—	1
(1803a)	2. iv.1803	81	2	1	4	15	1	12	6	2	1	—	—
(1803b)	28. xi.1803	69	—	—	1	—	—	—	1	2	—	1	—
(1804a)	14. v.1804	6	—	—	—	—	—	—	—	6	—	—	—
(1804b)	14. v.1804	—	—	—	—	—	—	—	—	—	—	—	—
(1804c)	20. ix.1804	10	—	—	—	—	—	—	—	6	—	—	—
(1804d)	27.xii.1804	9	—	—	—	—	—	—	—	—	—	—	—
(1805a)	June 1805	13	—	—	—	—	—	—	—	—	—	1	—
(1805b)	18. xi.1805	19	—	—	—	—	—	—	—	—	—	—	—

in collections of Megerle's contemporaries, especially those of P.F.M.A. Dejean, L. Gyllenhal, C.J. Schoenherr and J. Sturm.

6. About 30 of Megerle's available specific names with descriptions were also published by later authors (e.g. G.W.F. Panzer, C. Duftschmid, E.F. Germar, P.F.M.A. Dejean, C. Quensel, L. Gyllenhal, C.R.W. Wiedemann), who as a rule indicated Megerle as author of the name and in two cases (Panzer, [1804], pp. 4, 6, 8; Wiedemann, 1830, pp. 581, 603) even gave a reference to his catalogues. For nearly all these names (for two exceptions see para. 8) the authorship is currently attributed to these later authors. Most of Megerle's available names were never mentioned again in the literature, although some in Coleoptera are simply given in lists without bibliographic reference. Sherborn's *Index Animalium* (1922–1933) does not include Megerle's (1801–1805) names.

7. Acceptance of the names established in Megerle's *Catalogus Insectorum* would greatly disturb the stability of nomenclature (Schenkling, 1935; Horn, 1937, p. 396). In Coleoptera (CHRYSOMELIDAE) the well known genus *Doryphora* Illiger, 1807, which includes several hundred species, would become *Doriphora* Megerle. In Homoptera (MEMBRACIDAE) the current names of two genera would be changed as a result of a change of type species for *Centrotus* Fabricius, 1803. No less than 20 currently used specific names would become invalid as junior primary homonyms of Megerle's names, and for about 30 currently valid specific names the authorship and date would be changed. It can also not be excluded that for a number of Megerle's species the identity will be recognized (especially if their types are discovered) and their names will be found

to be senior synonyms of currently used names. It is clear that in the interests of stability of nomenclature Megerle's (1801–1805) catalogues should be suppressed.

8. To the best of my knowledge, only two specific names established in Megerle's catalogues have been continuously (for more than 50 years) used with his authorship. These are those of *Saperda alboguttata* Megerle, 1803a (p. [10]) (now in *Apomecyna*) (Coleoptera, CERAMBYCIDAE) and *Hippobosca variegata* Megerle, 1803a (p. [17]) (Diptera, HIPPOBOSCIDAE) (for the first name see Aurivillius, 1921, p. 278 and Gressitt, 1951, p. 489, and for the second see Wiedemann, 1830, p. 603; Maa, 1977, p. 416 and Hutson & Oldroyd, 1980, p. 770).

9. Thompson (1988, pp. 209, 221–222) accepted *Syrphus violascens* Megerle, 1803b (p. [36]) as a valid name and changed *Chalcosyrphus chalybeus* (Wiedemann, 1830, p. 98, originally established as *Xylota chalybea*) to *C. violascens* (Megerle, 1803) (Diptera, SYRPHIDAE). He also noticed that for *Pyrgota undata* Wiedemann, 1830 (p. 581; misspelt by Thompson as '*undulata*') (Diptera, PYRGOTIDAE) reference to *Myopa undata* Megerle, 1803a (p. [17]) was given by Wiedemann himself. These changes of names and/or authorship (for the former practice see Wirth, Sedman & Weems, 1965, p. 606; Steyskal, 1965, p. 657) are very recent and I do not regard conservation of *Syrphus violascens* Megerle, 1803 and *Myopa undata* Megerle, 1803 as substantiated by usage or to be appropriate.

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  (a) to suppress for nomenclatural purposes the works entitled *Catalogus Insectorum* ... and *Appendix ad catalogum insectorum* ... published by J.C. Megerle (1801–1805);
  (b) to rule that the following specific names are available despite having been published in a suppressed work:
    (i) *alboguttata* Megerle, 1803, as published in the binomen *Saperda alboguttata*;
    (ii) *variegata* Megerle, 1803, as published in the binomen *Hippobosca variegata*;
(2) to place on the Official List of Specific Names in Zoology the following names:
  (a) *alboguttata* Megerle, 1803, as published in the binomen *Saperda alboguttata* and as conserved in (1)(b)(i) above;
  (b) *variegata* Megerle, 1803, as published in the binomen *Hippobosca variegata* and as conserved in (1)(b)(ii) above;
(3) to place on the Official Index of Rejected and Invalid Works in Zoology the works entitled *Catalogus Insectorum*... and *Appendix ad catalogum insectorum*... published by J.C. Megerle (1801–1805), as suppressed in (1)(a) above.

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Case 2751

Paolia vetusta Smith, 1871 (Insecta, Protorthoptera): proposed replacement of neotype by rediscovered holotype

C.G. Maples

Kansas Geological Survey, 1930 Constant Avenue, Lawrence, Kansas 66047, U.S.A.

Abstract. The purpose of this application is to replace the neotype of the Upper Carboniferous protorthopteran *Paolia vetusta* Smith, 1871 by the holotype which has recently been rediscovered in the collections of the Hanover College Museum, Indiana. The Dutch specimen designated as neotype by Laurentiaux (1950) is thought not to be conspecific with the holotype from Indiana.

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1. Smith (1871, pp. 44–46, fig. 1) described and figured a new genus and species of Pennsylvanian (Upper Carboniferous) insect which he named *Paolia vetusta* from the Hindostan whetstone beds (Mansfield Formation) of Indiana, U.S.A. Smith's material consisted of a single hind wing. The specimen was reposited at the Hanover College Museum, Hanover, Indiana.

2. Laurentiaux (1950, p. 15) apparently attempted to borrow Smith's holotype, but was told that it had been lost. He wrote: 'Le spécimen génotypique décrit par S. Smith a été perdu en 1918 lors de l'incendie du College de Hannover où il était conservé. Je remercie les Professeurs Dunbar et Grant Wickwire qui m'ont communiqué ces informations'. In the light of this information Laurentiaux designated a neotype for *Paolia vetusta* based on collections from the Netherlands.

3. Kukulavá (1958, p. 949) judged Laurentiaux's neotype to be related to, but not conspecific with, *Paolia vetusta* Smith. She referred to his specimen as *Paolia* aff. *vetusta* Smith, 1871.

4. In 1984, after a thorough search of the collections at Hanover College, S.M. Totten (Geology Department, Hanover College), using a general description provided by myself, located Smith's missing holotype. It is registered as HCM A72/51. It had been scorched in the fire at Hanover College in 1918, and may have been further scorched in another fire in 1941.

5. I (Maples, 1989) refigured and redescribed the holotype which, until then, had never been photographed, gave a list of citations and pointed out (p. 887) that, with the rediscovery of the holotype, Laurentiaux's specimen should no longer have type status. Article 75h of the Code states that 'if, after the designation of a neotype, the holotype... of the nominal species-group taxon is found still to exist, the case is to be referred to the Commission to rule whether the neotype is or is not to be retained as the name-bearing type'. Since the rediscovered holotype has now been figured and is available for study, and since the neotype is thought not to be conspecific, it would be desirable for the Commission to rule that the rediscovered holotype should replace the neotype.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to suppress the neotype designation made by Laurentiaux (1950) for *Paolia vetusta* Smith, 1871;

(2) to place on the Official List of Generic Names in Zoology the name *Paolia* Smith, 1871 (gender: feminine), type species by monotypy *Paolia vetusta* Smith, 1871;

(3) to place on the Official List of Specific Names in Zoology the name *vetusta* Smith, 1871, as published in the binomen *Paolia vetusta*, and as defined by the holotype HCM A72/51 (specific name of the type species of *Paolia* Smith, 1871).

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Case 2755

Eurymeloides Ashmead, 1889 (Insecta, Homoptera): proposed confirmation of *Eurymela bicincta* Erichson, 1842 as the type species, and designation of a neotype for *E. bicincta*

M.M. Stevens

Yanco Agricultural Institute, New South Wales Agriculture and Fisheries,
Yanco, NSW 2703, Australia

M.J. Fletcher

Biological and Chemical Research Institute, New South Wales Agriculture and
Fisheries, PMB 10, Rydalmere, NSW 2116, Australia

Abstract. The purpose of this application is to designate a neotype in accordance with current usage for the eurymelid leafhopper species *Eurymela bicincta* Erichson, 1842, the type species of *Eurymeloides* Ashmead, 1889. Recognition of the syntypes would cause nomenclatural confusion within the family EURYMELIDAE Amyot & Serville, 1843.

1. Ashmead (1889, p. 126) established the genus *Eurymeloides* without included species. Kirkaldy (1906, p. 354) designated *Eurymela bicincta* Erichson, 1842 (p. 286) as the type species of the genus, admitting the species was unknown to him. He referred 14 species to the genus, six of them new. Later, Kirkaldy (1907, p. 29) recognised that there were discrepancies between Ashmead's diagnosis and the species he (Kirkaldy) had previously referred to the genus. He proposed the new name *Eurymelias* for *Eurymeloides* sensu Kirkaldy (1906), stating the latter was 'apparently not of Ashmead', and designated *Eurymeloides hyacinthus* Kirkaldy, 1906 (p. 351) as the type species of *Eurymelias*.

2. Distant (1908, p. 101) incorrectly assumed that Kirkaldy (1907) had proposed two names (*bicincta* and *hyacinthus*) for the type species of *Eurymeloides* Ashmead, and (1908, pp. 101–104; 1917, p. 188) added six new species to the genus. Evans (1933, p. 83) considered '*Eurymela bicincta*' (see below) and *Eurymeloides hyacinthus* to be congeneric and thus *Eurymelias* a junior subjective synonym of *Eurymeloides*; he added a further two new species to *Eurymeloides*. Evans's definition of *Eurymeloides* and understanding of *Eurymela bicincta* have been the sense in which the generic name has been used until the present time.

3. Two syntypes of *Eurymela bicincta* Erichson, 1842 have recently been located in the Museum für Naturkunde der Humboldt-Universität in Berlin; they are conspecific with *Eurymela semifascia* Walker, 1851 (p. 643), the type species of *Platyeurymela* Evans, 1933 (p. 78).

4. At present 12 species are recognised in *Eurymeloides* Ashmead, and it is thus the largest genus included in the EURYMELIDAE. Of these 12 species, type specimens have

been examined for all but two species by one of us (M.M.S.). They are congeneric with each other but not with the syntypes of *Eurymela bicincta*. Several of the species are widespread, well known, and abundantly represented in collections (see, for example, Evans (1933, 1966) and Stevens (1985); a list of a further six papers by Evans is held by the Commission Secretariat). Some are currently the subject of ecological and biological investigation (Stevens, 1985; Rozario, 1989). Recognition of the specimens in the Humboldt Museum as the syntypes of *Eurymela bicincta* would necessitate the recognition of *Eurymeloides* Ashmead, 1889 as a senior subjective synonym of *Platyeurymela* Evans, 1933, the use of the unused generic name *Eurymelias* Kirkaldy, 1907 for all 12 species now referred to *Eurymeloides*, and the species previously thought to be *Eurymeloides bicincta* (Erichson) would become *E. bicinctellus* (Kirkaldy, 1906) (see next para.). Such action would cause unwarranted taxonomic confusion.

5. To stabilise the present usage of the names *Eurymeloides* Ashmead, 1889, *Platyeurymela* Evans, 1933 and *bicincta* Erichson, 1842, and so avoid nomenclatural confusion, we propose that a specimen in the collection of the Bernice P. Bishop Museum, Honolulu, Hawaii, U.S.A. should be designated the neotype of *Eurymela bicincta* Erichson, 1842. The specimen is male and pinned. It has five labels, as follows:

(1) Sydney, N.S.W. Austr. m [letter 'm' in red] 1–1905. (2) Coll. Koebele. (3) Type of *E. bicinctellus* Kirk [on maroon paper, species name handwritten]. (4) *Eurymelias bicinctellus* 544 (Kirk.) ['544' in pencil, label apparently in the handwriting of G.W. Kirkaldy]; (5) Neotype *Eurymela bicincta* (Erichson). The specimen is a syntype of *Eurymeloides bicinctellus* Kirkaldy, 1906 (p. 352), a taxon considered to be identical to *E. bicincta* (Erichson) as defined by Evans (1933, p. 83; 1966, p. 62) and current usage. Medler (1987, p. 115) detailed the significance of certain features of the labels carried by the Kirkaldy type specimens. The red letter 'm' on label 1 refers to Mittagong, New South Wales. Label 3, implying lectotype status, was apparently placed on the specimen by F. Muir. However, designation of a lectotype for *E. bicinctellus* has not been published and Kirkaldy's type specimens (this specimen and a female specimen) are syntypes. We now designate this specimen as the lectotype of *bicinctellus* with the result that *bicincta* Erichson, 1842 and *bicinctellus* Kirkaldy, 1906 are objective synonyms.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type specimens for the nominal species *Eurymela bicincta* Erichson, 1842 and to confirm the neotype designation proposed in para. 5 above;

(2) to confirm that the nominal species *Eurymela bicincta* Erichson, 1842 is the type species of *Eurymeloides* Ashmead, 1889;

(3) to place on the Official List of Generic Names in Zoology the name *Eurymeloides* Ashmead, 1889 (gender: feminine), type species by subsequent designation by Kirkaldy (1906) *Eurymela bicincta* Erichson, 1842;

(4) to place on the Official List of Specific Names in Zoology the name *bicincta* Erichson, 1842, as published in the binomen *Eurymela bicincta* (specific name of the type species of *Eurymeloides* Ashmead, 1889), and as defined by the neotype designated in (1) above.

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Case 2754

Scoparipes Signoret, 1880 (Insecta, Heteroptera): proposed confirmation of *Cydnus latipes* Westwood, 1837 as the type species

Jerzy A. Lis
Department of Natural History, Upper Silesian Museum, Pl. Sobieskiego 2,
41-902 Bytom, Poland

Abstract. The purpose of this application is to confirm that the nominal species *Cydnus latipes* Westwood, 1837 is the type of the genus *Scoparipes* Signoret, 1880. The original designation was of a misidentified species.

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1. Signoret (1880, p. clxxiii) described the genus *Scoparipes* and designated *Cydnus latipes* Westwood, 1837 as the type species. His paper was a report of a séance held on 24 December 1879, but availability of the name *Scoparipes* dates from publication of the report in 1880. The specimen identified by Signoret (1880) as '*C. latipes*' is in W.L. Distant's collection in the Natural History Museum, London, and is from Borneo.

2. However, Java is the original type locality of *Cydnus latipes* Westwood, 1837 (p. 18). The type specimens, no. Hem. No. 63, are preserved in the Hope Entomological Collections, Oxford, and a female lectotype was selected by me (Lis, 1990, p. 169).

3. Personal examination (Lis, 1990, pp. 161, 165, 169) of the specimen from Borneo determined by Signoret (1880, p. clxxiii) as '*Scoparipes latipes* (Westwood)' has shown it to belong to *S. conviva* Horváth, 1919 (p. 233), a species from Borneo. The type specimens of *S. conviva* are preserved in the collections of the Hungarian Natural History Museum, Budapest, and I have selected a female as lectotype (Lis, 1990, p. 165).

4. Signoret (1881) applied the specific name *latipes* to several specimens belonging to different taxonomic species (see Lis, 1990, p. 159).

5. Distant (1902, p. 88) knew nothing of Signoret's misidentification and followed Signoret in taking *Cydnus latipes* Westwood, 1837 to be the type species of *Scoparipes*. The name *Scoparipes latipes* had been used in two other works by Distant (1899, p. 219; 1900, p. 820) and by Lethierry & Severin (1893, p. 63); until my work (1990) the Oriental CYDNIDAE had not been studied since the beginning of the 20th century.

6. As the nominal type species of *Scoparipes* Signoret, 1880 was based upon a misidentified specimen, the case is referred to the Commission under Article 70b, although both *Cydnus latipes* and *S. conviva* belong to the same genus (and subgenus *Scoparipes* (Lis, 1990, p. 163)).

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to confirm that the type species of *Scoparipes* Signoret, 1880 is *Cydnus latipes* Westwood, 1837, by original designation;

(2) to place on the Official List of Generic Names in Zoology the name *Scoparipes* Signoret, 1880 (gender: masculine), type species *Cydnus latipes* Westwood, 1837, as confirmed in (1) above;

(3) to place on the Official List of Specific Names in Zoology the name *latipes* Westwood, 1837, as published in the binomen *Cydnus latipes* (specific name of the type species of *Scoparipes* Signoret, 1880).

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Case 2756

Proagoderus Lansberge, 1883 (Insecta, Coleoptera): proposed conservation

Claudia Palestrini

Dipartimento di Biologia Animale, Università di Torino, via Accademia Albertina 17, 10123 Torino, Italy

Abstract. The purpose of this application is the conservation of the currently used subgeneric name of the dung beetle *Proagoderus* Lansberge, 1883 (SCARABAEOIDEA, genus *Onthophagus* Latreille, 1802) by the suppression of the unused senior subjective synonym *Onthotrogus* Motschulsky, 1859.

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1. Motschulsky (1859, p. 153) introduced the generic name *Onthotrogus* for *Scarabaeus auratus* Fabricius, 1801 (p. xii; currently *Onthophagus* (*Proagoderus*) *auratus*). The three syntype specimens of *auratus* are housed in the Zoological Museum of Copenhagen.

2. Lansberge (1883, p. 15) described the new subgenus *Proagoderus* (within *Onthophagus* Latreille, 1802) for the single species *Onthophagus* (*Proagoderus*) *ritsemae* Lansberge, 1883. The holotype of *ritsemae* is in the Oberthür collection in the Muséum National d'Histoire Naturelle, Paris.

3. H. d'Orbigny used the name *Proagoderus* Lansberge in 14 works between 1898–1916 and in his 1913 monograph *Synopsis des Onthophagides d'Afrique*; he did not mention *Onthotrogus*. D'Orbigny referred 93 species, including *Onthophagus auratus* (as *Scarabaeus auratus*), to the subgenus *Proagoderus*.

4. *Proagoderus* has been in general use from 1883 and has been repeatedly cited in zoological literature. A representative list of 63 references between 1883 and 1988 is held by the Commission Secretariat, and includes Marcus (1917, p. 4), Balthasar (1963, p. 158) and Ferreira (1972, p. 510).

5. The name *Onthotrogus* had not been used since its proposal in 1859 until Paulian (1986, p. 214) proposed this synonymy '*Onthotrogus* Motschulsky, 1859 espèce-type *Scarabaeus auratus*, Fabricius, 1801 par monotypie = *Proagoderus* Lansberge 1883 espèce-type *Onthophagus (Proagoderus) ritsemae* Lansberge 1883, par monotypie'. Paulian noted that the current Code does not authorize the automatic rejection of 'nomina oblita'.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Onthotrogus* Motschulsky, 1859 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Proagoderus* Lansberge, 1883 (gender: masculine), type species by monotypy *Onthophagus* (*Proagoderus*) *ritsemae* Lansberge, 1883;

(3) to place on the Official List of Specific Names in Zoology the name *ritsemae* Lansberge, 1883, as published in the binomen *Onthophagus* (*Proagoderus*) *ritsemae* (specific name of the type species of *Proagoderus* Lansberge, 1883);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Onthotrogus* Motschulsky, 1859, as suppressed in (1) above.

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Case 1707

Diabrotica undecimpunctata Mannerheim, 1843 (Insecta, Coleoptera): proposed conservation of the specific name, and of the subspecific name *howardi* Barber, 1947

P.K. Tubbs

Executive Secretary, International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Abstract. The purpose of this application is the conservation of the specific name of the North American leaf beetle *Diabrotica undecimpunctata* Mannerheim, 1843, which is an important agricultural pest. The unused name *Crioceris sexpunctata* Fabricius, 1792 is a senior subjective synonym of the subspecies *howardi* Barber, 1947 of *D. undecimpunctata*, and the proposed suppression of *sexpunctata* Fabricius conserves both *undecimpunctata* Mannerheim and *howardi* Barber.

1. The North American chrysomelid beetle known as *Diabrotica undecimpunctata* Mannerheim, 1843 is an abundant and important pest species. It attacks a very wide variety (at least seven botanical families) of crops, including corn, fruit and vegetables, and affects them by transmitting diseases as well as by foliage and root feeding. The name is in constant use by plant breeders and pathologists, agronomists, entomologists and others. There are numerous references to it every year.

2. In an application to the Commission published in 1965 (BZN **22**: 246) Prof Ray F. Smith (*University of California, Berkeley*) proposed that the specific name *undecimpunctata* should be conserved, although it has a senior subjective synonym. Prof Smith's application, in common with many others, was held in abeyance after its publication because the automatic rejection of nomina oblita (senior synonyms unused for 50 years, with a junior synonym in general use; Article 23b of the 1964 Code) was under review. The relevant Code provision was repealed as from 1 January 1973, but due to pressures the case was never completed (although in 1984 the then Commission Secretary, Mr R.V. Melville, wrote to Prof Smith, who confirmed that *undecimpunctata* should indeed be conserved). The case is now resubmitted in an expanded form.

3. The earliest name probably applying to the species (see Barber, 1947, p. 151) is *Chrysomela duodecimpunctata* Fabricius, 1775 (p. 103), but this is unavailable as a misidentification or junior primary homonym of *C. duodecimpunctata* Linnaeus, 1758 (p. 376). Later Fabricius (1792, p. 4) published the name *Crioceris sexpunctata* for a chrysomelid, citing 'Cap. Bon. Spei' [Cape of Good Hope] as the habitat of the species and 'Mus. Dom. Banks' as the source of the type material. In the original application Prof Smith reported that the Banks collection in the Natural History Museum (London) contained a specimen, labelled '6punctata Forster' and 'type', which is probably the type of *sexpunctata* Fabricius (see also Smith & Lawrence, 1967, p. 122). It was presumably collected by J.R. Forster in North America, Fabricius being in

error about the origin, since it is a specimen of *Diabrotica undecimpunctata howardi* (see para. 7). The name *sexpunctata* has not been used since Hope (1840, p. 102), presumably because Fabricius had attributed the species to a wrong continent.

4. Mannerheim (1843, p. 309) described *Diabrotica duodecimpunctata* (Fabricius, 1775) 'var. b' from California and cited a manuscript name '*Galleruca 11-punctata* Eschscholtz in litteris' in synonymy; he mentioned that 'var. b' might be a distinct species. As stated in para. 3, the name *duodecimpunctata* cannot be used for the species, but under Article 11e of the Code *undecimpunctata* is available (with Mannerheim, 1843 as author) because before 1961 it had been adopted as valid by Michelbacher, MacLeod & Smith, 1941, p. 709 (see also Barber, 1947, p. 153). Mannerheim (1843) placed the species in *Diabrotica* Dejean, [1835] (p. 380); previously Dejean ([1835], p. 381) had mentioned the nomen nudum 'Var. *Undecimpunctata* Esch.' from California under *D. duodecimpunctata* (Fabricius).

5. A different taxonomic species (from Peru) was described with the name *D. undecimpunctata* by Jacoby (1879, p. 524). Barber (1947, p. 153) published the replacement name *D. mauliki* for this species.

6. Klug ([1833], p. 212) described a beetle from Madagascar as *Galleruca undecimpunctata*. The name '*Galleruca*' is an incorrect spelling (introduced by Fabricius, 1792, p. 12) of *Galeruca*, first published by Geoffroy (1762, p. 251). As noted in para. 4, *undecimpunctata* Mannerheim, 1843 was published in association with *Diabrotica* Dejean, [1835] and there is therefore no reason to reject it as a junior primary homonym of *Galeruca undecimpunctata* Klug.

7. Before the introduction by Michelbacher, MacLeod & Smith (1941) of the name *undecimpunctata* Mannerheim the species had been known as *Diabrotica soror* Le Conte, 1865 (p. 212), although there is an earlier synonym than this, namely *D. tenella* Le Conte, 1858 (p. 88). Barber (1947, p. 153) divided *D. undecimpunctata* into four subspecies: the nominotypical one, from the western United States, corresponds to *soror* Le Conte, the holotype of *Crioceris sexpunctata* Fabricius, 1792 (see para. 3) is a specimen of the subspecies *howardi* Barber, 1947 (p. 153) from the southern and eastern U.S., and *tenella* and *duodecimnotata* Harold, 1875 were described from Arizona and Mexico respectively.

8. Smith & Lawrence (1967, p. 136) designated a specimen in the Zoologiska Museet, Helsinki, labelled 'Calif. bor. Coll. Mannerh.', as the lectotype of *Diabrotica duodecimpunctata* var. b Mannerheim, that is of *D. undecimpunctata* Mannerheim, 1843.

9. The conservation of the name *undecimpunctata* Mannerheim, 1843 is highly desirable, since it has for 50 years been in exclusive use for the pest species in a very extensive literature and the senior subjective synonym *sexpunctata* Fabricius, 1792 has not been used for 150 years. Smith's 1965 rejection (BZN **22**: 246) of *sexpunctata* as a nomen oblitum was supported by six workers (pp. 246, 247) and still stands; however, Article 79c(iii) of the present Code prescribes that such cases should be referred to the Commission and the opportunity has been taken to add further information.

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *sexpunctata* Fabricius, 1792, as published in the binomen *Crioceris sexpunctata*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place the following names on the Official List of Specific Names in Zoology:
  (a) *undecimpunctata* Mannerheim, 1843, as published in association with the generic name *Diabrotica* Dejean, [1835];
  (b) *howardi* Barber, 1947, as published in the trinomen *Diabrotica undecimpunctata howardi*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *sexpunctata* Fabricius, 1792, as published in the binomen *Crioceris sexpunctata* and as suppressed in (1) above.

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Case 2767

Drosophila hydei Sturtevant, 1921 (Insecta, Diptera): proposed conservation of the specific name

C.R. Vilela

Universidade de São Paulo, Departamento de Biologia, Instituto de Biociências, C.P. 11461, 05499 São Paulo SP, Brazil

G. Bächli

Zoologisches Museum, Universität Zürich-Irchel, Winterthurerstrasse 190, CH-8057 Zürich, Switzerland

Abstract. The purpose of this application is to conserve the specific name of *Drosophila hydei* Sturtevant, 1921. *D. hydei* is widespread and is important in the field of genetics. It is threatened by the essentially unused senior subjective synonym *Drosophila marmoria* Hutton, 1901.

1. The name *Drosophila marmoria* was published by Hutton (1901, p. 91) with a short accompanying description. The holotype is a female collected in Auckland, New Zealand, and is deposited in the collections of the Canterbury Museum, Christchurch, New Zealand. The name was used in an additional paper by Hutton (1904, p. 129).

2. *Drosophila marmoria* Hutton, 1901 was considered by Bezzi (1910, p. 67; 1912, p. 2) and Sturtevant (1921, p. 99) to be a doubtful synonym of *D. repleta* Wollaston, 1858 (p. 117). It was also considered a synonym of *D. hydei* Sturtevant, 1921 by Harrison (1952, p. 511; 1959, p. 303) and Wheeler (1959, p. 193). The former synonymy was followed by nearly all authors and since Sturtevant (1921) *D. marmoria* has been cited as a valid name only by Miller (1950, p. 113), who probably overlooked the work of earlier authors. In a revision of the *D. repleta* species group (Vilela, 1983, pp. 31, 88) it was listed as a probable synonym both of *D. repleta* and of *D. hydei.*

3. The type specimen of *D. marmoria* was thoroughly studied by us, including dissection of the abdomen, and found to be a specimen of *D. hydei* Sturtevant, 1921 (Vilela & Bächli, 1990, p. 93). Although female, the type specimen does not leave any doubt as to the specific identity.

4. The name *Drosophila hydei* was published by Sturtevant (1921, p. 101) with an accompanying description; he also entered it in a key to the DROSOPHILIDAE of North America (1921, p. 68).

5. The name *D. hydei* Sturtevant, 1921 has been used in the title of at least 140 papers and a total of more than 800 publications dealing with this species have been found in the relevant literature. A separate subgroup of seven species, the *hydei* subgroup, was proposed by Wharton (1944, p. 178) within the *D. repleta* species group. Although such subgroups are not recognized as formal taxonomic categories, loss of usage of the name would create confusion in referring to these flies.

6. *Drosophila hydei* is cosmopolitan in its distribution and has been studied in the fields of genetics, population genetics, cytology, physiology, behavior, ecology, phylogeny and molecular biology (see, for example, Spencer, 1927; Stone, 1942; Chu, 1945; Wasserman, 1962; Berendes, 1963; Hess, 1976; Hennig, 1978; Wasserman, 1982; Johnston & Templeton, 1982; Arthur & Middlecote, 1984a, 1984b; Atrian & Gonzalez-Duarte, 1985; Markov, 1985; Rypstra & Gregg, 1986; Pecsenye, 1988 and Lankenau, Huijser & Hennig, 1989).

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *marmoria* Hutton, 1901, as published in the binomen *Drosophila marmoria*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *hydei* Sturtevant, 1921, as published in the binomen *Drosophila hydei*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *marmoria* Hutton, 1901, as published in the binomen *Drosophila marmoria* and as suppressed in (1) above.

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Case 2761

Chrysops atlanticus Pechuman, 1949 (Insecta, Diptera): proposed conservation of the specific name

J.E. Chainey

Department of Entomology, The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Abstract. The purpose of this application is to conserve the well-known specific name of the saltmarsh deer-fly *Chrysops atlanticus* Pechuman, 1949. The unused name *Chrysops canifrons* Walker, 1848 is a senior subjective synonym for this species, and the suppression of this name is proposed. The deer-fly, *C. atlanticus*, is of economic importance since it is a persistent biter of humans in the salt marshes on the eastern coast of the United States (Hansens, 1980a; Pechuman, 1981).

1. Walker (1848, p. 197) described *Chrysops canifrons* from a single specimen from Florida. Osten Sacken (1875, p. 385) thought *canifrons* was a 'probable, though doubtful' synonym of *C. flavidus* Wiedemann (1821, p. 105) and subsequently (1878, p. 53) listed it as a synonym of that species. This synonymy was accepted by subsequent authors (see Brennan, 1935; Philip, 1965) and *canifrons* has remained unused.

2. Examination of the holotype in the Natural History Museum, London, of *C. canifrons* shows that it is indistinguishable from *C. atlanticus* Pechuman, 1949; the name *canifrons* is therefore a senior subjective synonym of *atlanticus*.

3. Pechuman (1949, p. 79) described *Chrysops atlanticus* (as *atlantica*, which is incorrect since *Chrysops* is masculine (Article 30a(ii) of the Code)) from a long series of specimens (number not stated) which were found in localities in Massachusetts, Rhode Island, New York, New Jersey, Maryland and Virginia. He provided characters distinguishing *C. atlanticus* from *C. flavidus* Wiedemann, 1821.

4. The name *atlanticus* has been used by the following authors: Philip (1955), Teskey (1969), Anderson (1971, 1973), Hansens & Robinson (1973), Magnarelli & Anderson (1977), Orihel & Lowrie (1975) and Hansens (1980b). A further list of ten references is held by the Commission Secretariat.

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *canifrons* Walker, 1848, as published in the binomen *Chrysops canifrons*, for the purposes of the Principle of Priority not but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *atlanticus* Pechuman, 1949, as published in the binomen *Chrysops atlantica*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *canifrons* Walker, 1848, as published in the binomen *Chrysops canifrons* and as suppressed in (1) above.

Acknowledgement

I am grateful to J.F. Burger, University of New Hampshire, for his opinion on the holotype of *C. canifrons*.

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Case 2535

Proposed precedence of some bee family-group names (Insecta, Hymenoptera): names based on *Colletes* Latreille, 1802, on *Paracolletes* Smith, 1853, on *Halictus* Latreille, 1804, on *Anthidium* Fabricius, 1804 and on *Anthophora* Latreille, 1803 to have precedence over some senior names

Charles D. Michener

Snow Entomological Museum, Snow Hall, University of Kansas, Lawrence, Kansas 66045, U.S.A.

Abstract. The purpose of this application is to conserve the usage of some well known bee family-group names by giving them precedence over little used but senior names. It is proposed that COLLETIDAE Lepeletier, 1841 be given precedence over names based on *Prosopis* or *Hylaeus*; PARACOLLETINI Cockerell, 1934 over names based on *Neopasiphae*; HALICTIDAE Thomson, 1869 over names based on *Rophites* or *Sphecodes*; ANTHIDIINI Ashmead, 1899 over names based on *Stelis*; and ANTHOPHORIDAE Dahlbom, 1835 over names based on *Eucera*, *Xylocopa*, *Ceratina* or *Nomada*.

The use of some of the best known family-group names of bees is not in strict accord with the Principle of Priority, as I have discussed elsewhere (Michener, 1986). In order to avoid confusion amongst biologists the generally accepted names need to be conserved by giving them precedence over little used senior names; the latter would remain available for use at lower ranks of classification. Each case is taken up below as a numbered item (I–V).

The current widely accepted classificatory levels of the relevant family-group names are as follows:

- COLLETIDAE
  - COLLETINAE
    - COLLETINI
    - PARACOLLETINI (includes *Neopasiphae*)
  - HYLAEINAE (includes *Prosopis*)
- HALICTIDAE
  - HALICTINAE (includes *Sphecodes*)
  - ROPHITINAE
- MEGACHILIDAE
  - MEGACHILINAE
    - ANTHIDIINI (includes *Stelis*)
- ANTHOPHORIDAE
  - ANTHOPHORINAE
    - ANTHOPHORINI
    - EUCERINI

XYLOCOPINAE
  XYLOCOPINI
  CERATININI
NOMADINAE

In the text names in use for family-group taxa are treated as at the highest rank given above; however, for uniformity it is proposed that all the names be entered on the Official List at family rank, i.e. with the ending -IDAE. All the names except PARACOLLETINI and NEOPASIPHAEINAE have been used at family rank at one time or another.

I. COLLETIDAE Lepeletier, 1841

The relevant names are:

(a) PROSOPIDIDAE (published as Prosopiariae) Fallén, 1813 (p. 32). Type genus *Prosopis* Fabricius, 1804 (p. 293); type species *Mellinus bipunctatus* Fabricius, 1798 (p. 265). Morice & Durrant (1915, pp. 416–418) designated *Sphex signata* Panzer, 1798 (Heft 53, tab. 2) as the type species; they attributed *Prosopis* to [Jurine, 1801], but this 'Erlangen List' was suppressed for nomenclatural purposes in Opinion 135 (1939). Morice & Durrant also cited Fabricius (1804), and placed the female specimen of *Sphex signata* Panzer, '...the Type of *Prosopis* Jrn. (1801)...', in the synonymy of *Mellinus bipunctatus*, a nominal species included by Fabricius in *Prosopis*. *Mellinus bipunctatus* is the type species under Articles 67f and 69a(v) of the Code.

(b) HYLAEINAE (published as Hylaeidae) Viereck, 1916 (1813) (p. 737). Type genus *Hylaeus* Fabricius, 1793 (p. 302); type species by designation by Latreille (1810, p. 438) *Apis annulata* Linnaeus, 1758 (p. 578).

(c) COLLETIDAE (published as Colletides) Lepeletier, 1841 (p. 295). Type genus *Colletes* Latreille, 1802a (p. 423); type species by monotypy *Apis succincta* Linnaeus, 1758 (p. 576). Lepeletier's French word has been latinized and accepted since Agassiz (1845).

Prosopis Fabricius, 1804 is regarded as a junior subjective synonym or as a subgenus of *Hylaeus* Fabricius, 1793. Because there has been some usage of family-group names based on *Hylaeus*, it could be maintained that under Article 40b of the Code these names should take the seniority of PROSOPIDIDAE, e.g. HYLAEINAE Viereck, 1916 (1813). This would make HYLAEINAE senior to COLLETIDAE. Although in the past various authors included *Colletes* in a nominal family-group taxon based on *Prosopis* (e.g. Leach, [1815]) or on *Hylaeus* (e.g. Comstock, 1924), all major works in the present century have done the reverse, including *Hylaeus* or *Prosopis* in the COLLETIDAE. The COLLETIDAE in this sense is well known as a bee family (Michener, 1944) and its biogeography has been widely discussed (Michener, 1979). No major work in this century uses a family group with a name based on *Hylaeus* or *Prosopis* to include *Colletes*.

I propose that family-group names based on *Colletes* be given precedence over those based on *Prosopis* or *Hylaeus*.

II. PARACOLLETINI Cockerell, 1934

The relevant names are:

(a) NEOPASIPHAEINAE Cockerell, 1930 (p. 148). Type genus *Neopasiphae* Perkins, 1912 (p. 114); type species by monotypy *Neopasiphae mirabilis* Perkins, 1912 (p. 115).

(b) PARACOLLETINI Cockerell, 1934 (p. 6). Type genus *Paracolletes* Smith, 1853 (p. 6); type species by monotypy *Paracolletes crassipes* Smith, 1853 (p. 6).

The family-group name based on *Neopasiphae* has appeared only rarely, perhaps only twice, in the literature (Cockerell, 1930; Rayment, 1935). Since 1935 this genus of two species has been included in the PARACOLLETINI, a tribe containing several hundred species that has been discussed in publications such as Michener (1944, 1965, 1979) and Stephen, Bohart & Torchio (1969). The PARACOLLETINI is a panaustral group of much biogeographical and evolutionary interest.

I propose that family-group names based on *Paracolletes* be given precedence over those based on *Neopasiphae*.

III. HALICTIDAE Thomson, 1869

The relevant names are:

(a) ROPHITINAE (published as Rhophitidae) Schenck, 1866 (p. 322). Type genus *Rophites* Spinola, 1808 (p. 8); type species by monotypy *Rophites quinquespinosus* Spinola, 1808 (p. 72). Schenck unnecessarily emended *Rophites* to *Rhophites*.

(b) SPHECODIDAE Schenck, [1869] (p. 316). Type genus *Sphecodes* Latreille, 1804 (p. 182); type species by monotypy *Sphex gibba* Linnaeus, 1758 (p. 571). SPHECODIDAE was published before June 26, 1869 (see Michener, 1986, p. 221).

(c) HALICTIDAE (published as Halictina) Thomson, [December 31] 1869 (p. 8). Type genus *Halictus* Latreille, 1804 (p. 182); type species by designation by Richards (1935, p. 170; see discussion by Michener (1978, pp. 530–532)) *Apis quadricincta* Fabricius, [1777] (p. 247).

The HALICTIDAE is one of the major families of bees, widely studied by behaviorists because of primitively social behavior. Family-group names based on *Sphecodes* and *Rophites* are both senior to that based on *Halictus*. If no action is taken, the family name will have to be changed to ROPHITIDAE. No author appears to have placed *Halictus* in SPHECODIDAE or ROPHITIDAE; rather, the last two names have been used by authors recognizing separate family-group taxa for *Sphecodes* and *Rophites*. The Commission Secretariat has been given a list of 19 references (which could be extended indefinitely) that use a family-group name based on *Halictus* to include *Sphecodes* or *Rophites*, or usually both. The only apoid classifications that do not use a family-group name based on *Halictus* are old ones that included this genus with the ANDRENIDAE or APIDAE.

I therefore propose that family-group names based on *Halictus* be given precedence over those based on *Rophites* or *Sphecodes*.

IV. ANTHIDIINI Ashmead, 1899

The relevant names are:

(a) STELIDIDAE (published as Stelidae) Schenck, 1860 (p. 141). Type genus *Stelis* Panzer, 1806 (p. 246); type species by monotypy *Apis aterrima* Panzer, 1798 (Heft 56, tab. 15; not Christ, 1791, p. 189), a senior but invalid subjective synonym of *Apis punctulatissima* Kirby, 1802 (p. 231).

(b) ANTHIDIINI (published as Anthidiinae) Ashmead, 1899 (p. 72). Type genus *Anthidium* Fabricius, 1804 (p. 364); type species by designation by Latreille (1810, p. 439) *Apis manicata* Linnaeus, 1758 (p. 577). Names based on *Stelis* and *Anthidium* have been used for this taxon. For example Robertson (1904), Swenk (1914) and

Moure (1944) used STELIDAE to include both *Anthidium* and *Stelis*. In recent decades, however, nearly all authors have used a family-group name based on *Anthidium* to include *Stelis* and its immediate relatives: a list of 11 references has been given to the Commission Secretariat. Because *Stelis* species are relatively rare, many papers use a name based on *Anthidium* without indicating whether or not *Stelis* would be included.

To settle the name of the group, I propose that family-group names based on *Anthidium* be given precedence over those based on *Stelis*.

V. ANTHOPHORIDAE Dahlbom, 1835

The relevant names are:

(a) PODALIRIIDAE (published as Podalirii) Latreille, 1802b (p. 377). Type genus *Podalirius* Latreille, 1802a (p. 415). Latreille (1803, p. 167) replaced *Podalirius* with *Anthophora* because the former has a senior botanical homonym. In Opinion 151 (1944) *Anthophora* was conserved on grounds of usage and *Podalirius* was suppressed (see below).

(b) ANTHOPHORIDAE (published as Anthophorini) Dahlbom, 1835 (p. 5). Type genus *Anthophora* Latreille, 1803 (p. 167); type species by designation in Opinion 151 (1944) *Apis pilipes* Fabricius, 1775 (p. 383). Under Article 67h of the Code *A. pilipes* is also the type species of the replaced nominal genus *Podalirius*. *Anthophora* and its type species were placed on the relevant Official Lists in Opinion 151.

(c) EUCERINI (published as Eucerae) Latreille, 1802b (p. 376). Type genus *Eucera* Scopoli, 1770 (p. 8); type species by designation by Latreille (1810, p. 439) *Apis longicornis* Linnaeus, 1758 (p. 574).

(d) XYLOCOPINAE (published as Xylocopae) Latreille, 1802b (p. 379). Type genus *Xylocopa* Latreille, 1802b (p. 379); type species by designation by Westwood ([1840], p. 86) *Apis violacea* Linnaeus, 1758 (p. 578). XYLOCOPIDAE was placed on the Official List of Family-Group Names in Opinion 743 (1965) with authorship attributed to Lepeletier (1841), but this should be corrected (cf. CERATININI below). *Xylocopa* and its type species were placed on the relevant Official Lists in Opinion 743; Dupuis (1986) has shown that Latreille (1802b) was published in November 1802, so removing the uncertainty in the date of *Xylocopa* and other names.

(e) CERATININI (published as Ceratinae) Latreille, 1802b (p. 380). Type genus *Ceratina* Latreille, 1802b (p. 380; type species by monotypy *Hylaeus albilabris* Fabricius, 1793 (p. 305), a junior subjective synonym of *Apis cucurbitina* Rossi, 1792 (p. 145). CERATINIDAE was placed on the Official List in Opinion 1001 (1973) with authorship correctly attributed to Latreille (cf. XYLOCOPIDAE above), and *Ceratina* and its type species were also placed on the Official Lists in that Opinion.

(f) NOMADINAE Fallén, 1813 (p. 31). Type genus *Nomada* Scopoli, 1770 (p. 44); type species by designation by Curtis (1832, pl. 419) *Apis ruficornis* Linnaeus, 1758 (p. 578). The 'Nomades de FAB.' of Latreille (1802a, p. 426), although plainly based on *Nomada*, was not published as a latinized family-group name and is not available from that work (see also, for example, 'Les Perce-bois. RÉAUM.' for the XYLOCOPINAE on p. 431), and nor did Latreille (1802b) give an available name for this subfamily.

It could be considered, by analogy with Article 40b of the Code, that family-group names based on *Anthophora* should take precedence from Latreille (1802b) when a name based on *Podalirius* was published. However, Dahlbom (1835) did not say why he proposed 'Anthophorini' and made no mention of *Podalirius*. Moreover, Article 40b concerns family-group names replaced because the names of their type genera are junior synonyms, and in this case it is the senior synonym (*Podalirius*) that has been suppressed. Thus Article 40b is not directly applicable, and no family-group name based on *Podalirius* can be adopted.

Since the family-group name based on *Anthophora* dates from 1835 it would have to be replaced, by strict application of the Principle of Priority, by one of the names (c) to (e) above. Logically the name selected would be the one based on *Eucera*, since this genus is classified in the same subfamily as *Anthophora* whereas *Xylocopa* and *Ceratina* are not. However, a family-group name based on *Anthophora* and including at least *Eucera* (and commonly other genera listed above) appears in virtually all bee classifications made in the present century except for that of Börner (1919) and a few based on his work. A list of 19 representative references has been given to the Commission Secretariat.

I therefore propose that family-group names based on *Anthophora* be given precedence over those based on *Eucera*, *Xylocopa*, *Ceratina* or *Nomada*.

Proposals

The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that:
  (a) family-group names based on *Colletes* Latreille, 1802 are to be given precedence over those based on *Prosopis* Fabricius, 1804 or *Hylaeus* Fabricius, 1793;
  (b) family-group names based on *Paracolletes* Smith, 1853 are to be given precedence over those based on *Neopasiphae* Perkins, 1912;
  (c) family-group names based on *Halictus* Latreille, 1804 are to be given precedence over those based on *Rophites* Spinola, 1808 or *Sphecodes* Latreille, 1804;
  (d) family-group names based on *Anthidium* Fabricius, 1804 are to be given precedence over those based on *Stelis* Panzer, 1806;
  (e) family-group names based on *Anthophora* Latreille, 1803 are to be given precedence over those based on *Eucera* Scopoli, 1770, *Xylocopa* Latreille, 1802, *Ceratina* Latreille, 1802 or *Nomada* Scopoli, 1770;

(2) to amend the entry on the Official List of Family-Group Names in Zoology for XYLOCOPIDAE to record the authorship of Latreille, 1802 and the ruling in (1)(e) above that it and other family-group names based on *Xylocopa* Latreille, 1802 are not to be given priority over those based on *Anthophora* Latreille, 1803;

(3) to amend the entry on the Official List of Family-Group Names in Zoology for CERATINIDAE Latreille, 1802 to record the ruling in (1)(e) above that it and other family-group names based on *Ceratina* Latreille, 1802 are not to be given priority over those based on *Anthophora* Latreille, 1803;

(4) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Prosopis* Fabricius, 1804 (gender: feminine), type species by designation by Morice & Durrant (1915) *Mellinus bipunctatus* Fabricius, 1798;
  (b) *Hylaeus* Fabricius, 1793 (gender: masculine), type species by designation by Latreille (1810) *Apis annulata* Linnaeus, 1758;

- (c) *Colletes* Latreille, 1802 (gender: masculine), type species by monotypy *Apis succincta* Linnaeus, 1758;
- (d) *Neopasiphae* Perkins, 1912 (gender: feminine), type species by monotypy *Neopasiphae mirabilis* Perkins, 1912;
- (e) *Paracolletes* Smith, 1853 (gender: masculine), type species by monotypy *Paracolletes crassipes* Smith, 1853;
- (f) *Rophites* Spinola, 1808 (gender: masculine), type species by monotypy *Rophites quinquespinosus* Spinola, 1808;
- (g) *Sphecodes* Latreille, 1804 (gender: masculine), type species by monotypy *Sphex gibba* Linnaeus, 1758;
- (h) *Halictus* Latreille, 1804 (gender: masculine), type species by designation by Richards (1935) *Apis quadricincta* Fabricius, [1777];
- (i) *Stelis* Panzer, 1806 (gender: feminine), type species by monotypy *Apis aterrima* Panzer, 1798, a junior homonym of *Apis aterrima* Christ, 1791 and a subjective synonym of *Apis punctulatissima* Kirby, 1802;
- (j) *Anthidium* Fabricius, 1804 (gender: neuter), type species by designation by Latreille (1810) *Apis manicata* Linnaeus, 1758;
- (k) *Eucera* Scopoli, 1770 (gender: feminine), type species by designation by Latreille (1810) *Apis longicornis* Linnaeus, 1758;
- (l) *Nomada* Scopoli, 1770 (gender: feminine), type species by designation by Curtis (1832) *Apis ruficornis* Linnaeus, 1758;

(5) to place on the Official List of Specific Names in Zoology the following names:

- (a) *bipunctatus* Fabricius, 1798, as published in the binomen *Mellinus bipunctatus* (specific name of the type species of *Prosopis* Fabricius, 1804);
- (b) *annulata* Linnaeus, 1758, as published in the binomen *Apis annulata* (specific name of the type species of *Hylaeus* Fabricius, 1793);
- (c) *succincta* Linnaeus, 1758, as published in the binomen *Apis succincta* (specific name of the type species of *Colletes* Latreille, 1802);
- (d) *mirabilis* Perkins, 1912, as published in the binomen *Neopasiphae mirabilis* (specific name of the type species of *Neopasiphae* Perkins, 1912);
- (e) *crassipes* Smith, 1853, as published in the binomen *Paracolletes crassipes* (specific name of the type species of *Paracolletes* Smith, 1853);
- (f) *quinquespinosus* Spinola, 1808, as published in the binomen *Rophites quinquespinosa* (specific name of the type species of *Rophites* Spinola, 1808);
- (g) *gibba* Linnaeus, 1758, as published in the binomen *Sphex gibba* (specific name of the type species of *Sphecodes* Latreille, 1810);
- (h) *quadricincta* Fabricius, [1777], as published in the binomen *Apis quadricincta* (specific name of the type species of *Halictus* Latreille, 1804);
- (i) *punctulatissima* Kirby, 1802, as published in the binomen *Apis punctulatissima* (valid subjective synonym of the specific name of *Apis aterrima* Panzer, 1798, the type species of *Stelis* Panzer, 1806);
- (j) *manicata* Linnaeus, 1758, as published in the binomen *Apis manicata* (specific name of the type species of *Anthidium* Fabricius, 1804);
- (k) *longicornis* Linnaeus, 1758, as published in the binomen *Apis longicornis* (specific name of the type species of *Eucera* Scopoli, 1770);
- (l) *ruficornis* Linnaeus, 1758, as published in the binomen *Apis ruficornis* (specific name of the type species of *Nomada* Scopoli, 1770);

(6) to place on the Official List of Family-Group Names in Zoology the following names:

- (a) COLLETIDAE Lepeletier, 1841 (type genus *Colletes* Latreille, 1802), with the endorsement that it and other family-group names based on *Colletes* are to be given precedence over those based on *Prosopis* Fabricius, 1804 or *Hylaeus* Fabricius, 1793;
- (b) PROSOPIDIDAE Fallén, 1813 (type genus *Prosopis* Fabricius, 1804), with the endorsement that it and other family-group names based on *Prosopis* are not to be given priority over those based on *Colletes* Latreille, 1802;
- (c) HYLAEIDAE Viereck, 1916 (1813) (type genus *Hylaeus* Fabricius, 1793), with the endorsement that it and other family-group names based on *Hylaeus* are not to be given priority over those based on *Colletes* Latreille, 1802;
- (d) PARACOLLETIDAE Cockerell, 1934 (type genus *Paracolletes* Smith, 1853), with the endorsement that it and other family-group names based on *Paracolletes* are to be given precedence over those based on *Neopasiphae* Perkins, 1912;
- (e) NEOPASIPHAEIDAE Cockerell, 1930 (type genus *Neopasiphae* Perkins, 1912), with the endorsement that it and other family-group names based on *Neopasiphae* are not to be given priority over those based on *Paracolletes* Smith, 1853;
- (f) HALICTIDAE Thomson, 1869 (type genus *Halictus* Latreille, 1804), with the endorsement that it and other family-group names based on *Halictus* are to be given precedence over those based on *Rophites* Spinola, 1808 or *Sphecodes* Latreille, 1804;
- (g) ROPHITIDAE Schenck, 1866 (type genus *Rophites* Spinola, 1808), with the endorsement that it and other family-group names based on *Rophites* are not to be given priority over those based on *Halictus* Latreille, 1804;
- (h) SPHECODIDAE Schenck, [1869] (type genus *Sphecodes* Latreille, 1804), with the endorsement that it and other family-group names based on *Sphecodes* are not to be given priority over those based on *Halictus* Latreille, 1804;
- (i) ANTHIDIIDAE Ashmead, 1899 (type genus *Anthidium* Fabricius, 1804), with the endorsement that it and other family-group names based on *Anthidium* are to be given precedence over those based on *Stelis* Panzer, 1806;
- (j) STELIDIDAE Schenck, 1860 (type genus *Stelis* Panzer, 1806), with the endorsement that it and other family-group names based on *Stelis* are not to be given priority over those based on *Anthidium* Fabricius, 1804;
- (k) ANTHOPHORIDAE Dahlbom, 1835 (type genus *Anthophora* Latreille, 1803), with the endorsement that it and other family-group names based on *Anthophora* are to be given precedence over those based on *Eucera* Scopoli, 1770, *Xylocopa* Latreille, 1802, *Ceratina* Latreille, 1802 or *Nomada* Scopoli, 1770.
- (l) EUCERIDAE Latreille, 1802 (type genus *Eucera* Scopoli, 1770), with the endorsement that it and other family-group names based on *Eucera* are not to be given precedence over those based on *Anthophora* Latreille, 1803;
- (m) NOMADIDAE Fallén, 1813 (type genus *Nomada* Scopoli, 1770), with the endorsement that it and other family-group names based on *Nomada* are not to be given priority over those based on *Anthophora* Latreille, 1803.

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In another paper (Michener, 1986) I acknowledged the help of several others in preparing an account of family-group names of bees. Omission of their names here is to save space and does not diminish my appreciation of their help. Philip K. Tubbs, Executive Secretary of the International Commission on Zoological Nomenclature, has very kindly called my attention to certain literature; he also recast my manuscript in the format of the *Bulletin of Zoological Nomenclature* and prepared the section headed 'Proposals'.

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Case 2697

Streptograptus Yin, 1937 (Graptolithina): proposed designation of *Graptolithus plumosus* Baily, 1871 as the type species

D.K. Loydell

Institute of Earth Studies, University College of Wales, Aberystwyth, Dyfed SY23 3DB, Wales, U.K.

Chen Xu

Nanjing Institute of Geology and Palaeontology, Academia Sinica, Chi-Ming-Ssu, Nanjing, China

Abstract. The purpose of this application is the designation of *Graptolithus plumosus* Baily, 1871 as the type species of the Silurian graptolite nominal genus *Streptograptus* Yin, 1937; the original type material had been misidentified as *Monograptus nodifer* Törnquist, 1881. The proposed designation is in accordance with usage of the last 50 years.

1. Baily (1871, pp. 22–23, figs. 1a–c) described a new species of monograptid, *Graptolithus plumosus*, from the Llandovery of Northern Ireland. Loydell (1990) has redescribed Baily's material and shown it to have come from strata of lower Telychian (Upper Llandovery) *Monograptus turriculatus* Biozone age. Loydell (1990, pl. 1, fig. 4, and text-fig. 1) illustrated as neotype of Baily's species a specimen housed in the Ulster Museum, numbered BELUM: K12274d [in the text on p. 938 this specimen number was misprinted as BELUM: K12275a]. Specimen BELUM: K12274d is herein confirmed as neotype of *Graptolithus plumosus* Baily, 1871.

2. Törnquist (1881, pp. 436–437, pl. 17, figs. 2a–c) described *Monograptus nodifer* sp. nov. from the 'retiolitesskiffern' of Nitsjö, Dalarne, Sweden. These strata are of upper Telychian (Upper Llandovery) *Monograptus spiralis* Biozone age.

3. Elles & Wood (1913, pp. 454–456, pl. 46, figs. 2a–d, text-fig. 313b non a, c, d) wrongly identified specimens of *Monograptus plumosus* as *M. nodifer*. Their specimens were from the Aberystwyth Grits of Cefn Hendre Quarry, Aberystwyth, and are of *Monograptus turriculatus* Biozone age. *Monograptus nodifer* Törnquist has never been recorded from strata of *M. turriculatus* Biozone age, whereas *M. plumosus* is confined to the *turriculatus* Biozone.

4. Yin (1937, p. 297) established the genus *Streptograptus* and designated *Monograptus nodifer* as type species. His specimens, which have now been lost, were from beds near Shihtien, Yunnan, China, which yielded *M. turriculatus* and were not *M. nodifer* sensu stricto. Chen is cited in Loydell (1990, p. 941) as stating that 'in China all references to *M. nodifer* are sensu Elles & Wood and not sensu Törnquist'. This is confirmed by Loydell's examination of Chinese graptolite literature, e.g. Mu et al. (1962, pp. 119–120, pl. 32, figs. 1–6), Wang et al. (1977, pp. 364–365, pl. 112, fig. 6) and

Chen (1984, pp. 71–72, pl. 16, figs. 8, 13, non 5). Chen (1986) described specimens of *M. plumosus* which had been chemically isolated and showed that their thecal structure was very different from that of *M. nodifer* sensu Törnquist as illustrated by Rickards, Hutt & Berry (1977, p. 67, text-fig. 32). *M. nodifer* sensu Törnquist has not yet been identified from China.

5. The genus *Streptograptus* has been widely used in continental Europe, in the U.S.S.R. and in China for monograptids with a thecal form similar to that of *M. plumosus* as illustrated by Chen (1986). Loydell (1990, pp. 940–941) described in detail the history of this genus. He pointed out that 'as Yin clearly based his generic diagnosis for *Streptograptus* on *Monograptus plumosus* and not on *Monograptus nodifer* s.s., *G[raptolithus] plumosus* should be made the type species of the genus *Streptograptus* Yin, 1937...'.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all prior designations of the type species for the nominal genus *Streptograptus* Yin, 1937 and to designate *Graptolithus plumosus* Baily, 1871 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Streptograptus* Yin, 1937 (gender: masculine), type species by designation in (1) above *Graptolithus plumosus* Baily, 1871;

(3) to place on the Official List of Specific Names in Zoology the name *plumosus* Baily, 1871, as published in the binomen *Graptolithus plumosus* (specific name of the type species of *Streptograptus* Yin, 1937).

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Case 2771

Amphiuma tridactylum Cuvier, 1827 (Amphibia, Caudata): proposed conservation of the specific name

Harold A. Dundee

Department of Ecology, Evolution, and Organismal Biology, Tulane University, New Orleans, Louisiana 70118, U.S.A.

Abstract. The purpose of this application is to conserve the specific name of *Amphiuma tridactylum* Cuvier, 1827 which is currently in use for the three-toed amphiuma of the eastern United States. The name is threatened by the unused senior synonym *Syren quadrupeda* Custis, 1807.

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1. Custis (1807, p. 60) proposed the name *Syren quadrupeda* for a species of amphiuma. He had first used the name in a letter (now in the archives of the American Philosophical Society) to Barton in 1806. An account of the expedition during which the species was found, details of publication of the natural history reports, and a reproduction of Custis's description of the species were given by Flores (1984). Cuvier (1827, p. 7, pl. 1, figs. 4–6, pl. 2, figs. 6–18) later described the same species under the name *Amphiuma tridactylum*. Gray (1850, p. 55) synomymized *quadrupeda* with *tridactylum* Cuvier, 1827 (pp. 7–8) and adopted the later name. The species has been known consistently as *tridactylum*.

2. The name *quadrupeda* has been credited erroneously to Barton (1808) in the literature. Gray (1850, p. 55) placed '? Four-footed siren, Siren quadrupeda Barton on [sic] Siren lacertina' in the synonymy of *Muraenopsis tridactyla*, and Salthe (1973, p. 149.1) listed '*Siren quadrupeda* Barton, 1808; Gray, 1850: 55. Not seen' in his account of *Amphiuma tridactylum*. Flores (1984, p. 227) stated that Barton 'in his article, "Some accounts of the *Siren lacertina* and other species of the same genus," *Philadelphia Medical and Physical Supplement* (1808), p. 69,... proceeded to describe a new, four-legged *Siren* using a slight variation of the name Custis had proposed: *Siren quadrupedes*'. Barton's paper was published privately in 1808 and did not appear in the journal supplement. I have shown (Dundee, 1989, pp. 80–84) that neither Barton (1808) nor an 1821 republication of the paper included the new name *quadrupeda*. A brief note on *Siren lacertina* appeared in the first journal supplement (1806a, p. 69) but I have been unable to trace the name *quadrupeda* in any of the three supplements (published in 1806, 1807 and 1809). Barton (1806b) published part of Custis's 1806 letter but omitted the account of *Syren quadrupeda*, and in 1807 (p. 23) he mentioned that Custis had observed a new species of *Proteus* but did not ascribe a new name to it.

3. The name *quadrupeda* has not been used as valid since the original description by Custis (1807) and it would be very undesirable if it were now brought into use. The only citations of the name have been by Gray (1850), Salthe (1973) and Flores (1984), as mentioned above. The name *tridactylum* Cuvier, 1827 has had considerable usage; it has appeared in the major works of Holbrook (1842, p. 93, pl. 31), Baker (1947), Hill

(1954), Duellman & Trueb (1985), Frost (1985), and Conant & Collins (1991), and a list of a further 14 references demonstrating usage of the name is held by the Commission Secretariat. Replacement of *tridactylum* as the name for the species would be detrimental to nomenclatural stability.

4. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *quadrupeda* Custis, 1807, as published in the binomen *Syren quadrupeda*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *tridactylum* Cuvier, 1827, as published in the binomen *Amphiuma tridactylum*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *quadrupeda* Custis, 1807, as published in the binomen *Syren quadrupeda* and as suppressed in (1) above.

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Case 2779

Ichthyosaurus trigonus Owen, 1840 (currently *Macropterygius trigonus*; Reptilia, Ichthyopterygia): proposed replacement of neotype by rediscovered holotype

Earle E. Spamer

Academy of Natural Sciences, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103–1195, U.S.A.

Hugh S. Torrens

Department of Geology, University of Keele, Keele, Staffordshire ST5 5BG, U.K.

Abstract. The purpose of this application is to replace the neotype (now missing) of the Upper Jurassic ichthyosaur *Ichthyosaurus trigonus* Owen, 1840 by the holotype which has recently been found in the Benett collection at the Academy of Natural Sciences of Philadelphia.

1. Owen (1840, p. 124) established the species *Ichthyosaurus trigonus* based on a single vertebral centrum from the Kimmeridge Clay (Upper Jurassic) at Westbrook in Bromham, Wiltshire. He gave a detailed description but did not figure the specimen which had been loaned to him by Miss Etheldred Benett of Norton House, near Warminster, Wiltshire. Upon the death of Benett in 1845, her collection was divided and sold. Most of the collection was purchased by Thomas B. Wilson of Wilmington, Delaware, U.S.A., who donated it to the Academy of Natural Sciences between 1848 and 1852. Although the transfer of the Benett Collection to Wilson and the Academy had been noted in contemporary literature in England, knowledge of its disposition soon became unclear and it was thereafter said in the literature to be lost (for details see Spamer, Bogan & Torrens, 1989).

2. Phillips (1871, pp. 335–337) described *I. trigonus* and figured (diagrams cxxvi–cxxviii) sketches of anterior and side views of vertebrae from the Kimmeridge Clay. Phillips cited two 'principal localities' for the occurrence of *I. trigonus*, Shotover and Swindon, but there is no indication in his description and figure captions of *I. trigonus* whether the illustrated specimens were from more than one locality (or even from Shotover or Swindon) or from more than one individual.

3. Lydekker (1889, p. 22) remarked that the type specimen of *Ichthyosaurus trigonus* could not be found: 'This species was founded upon vertebrae [sic] from the Kimmeridge Clay, which are not now forthcoming; and it will be convenient to regard those figured by Phillips in his *Geology of Oxford* as representing the types'. This publication by Lydekker satisfies the requirements for the designation of a neotype specimen (Article 75 of the Code), including citation of the repository — the University Museum, Oxford (by indication to Phillips, 1871, pp. vii–viii).

4. Woodward & Sherborn (1890, p. 241) accepted Lydekker's act of designating a neotype: 'Vertebrae; [location of type] unknown. (Lydekker regards the originals of Phillips' figures as types)'.

5. Huene (1922, pp. 92, 98, not Huene, 1923, as cited in Neave, 1940, p. 19) placed the species *Ichthyosaurus trigonus* Owen within the genus *Macropterygius*, a new genus therein erected by Huene. *Ichthyosaurus trigonus* is the type species of *Macropterygius*, by subsequent designation by Huene (1923, p. 465).

6. Delair (1960, pp. 63–65) discussed the species *Macropterygius trigonus* (Owen). He said about the type material (p. 64): 'Lydekker, who noted that the type vertebrae is [sic] not now forthcoming, proposed to regard the cervical, dorsal, and caudal vertebrae from the Kimmeridgian of Shotover and Swindon, figured in 1871 by Phillips as the types of Owen's species. It may be observed that Phillips's specimens constitute the oldest named material now available for study, and Lydekker's proposal may be adopted inasmuch that Phillips's vertebrae serve as the one reliable basis for further research on this form'.

7. In October 1988, a single vertebral centrum was found in the Vertebrate Paleontology systematic collection in the Academy of Natural Sciences of Philadelphia. Glued to the vertebra are two labels, both written in the hand of its collector, Etheldred Benett: '*Ichthyosaurus trigonis* [sic] (nova species) Dr. Owen' and 'Westbrook in Bromham Wilts.' An Academy label indicates that the specimen was 'B.C. 8' in the Benett Collection, a number that was applied by the packer of the collection when it was sent to T.B. Wilson. The specimen (now re-registered ANSP 10124) matches Owen's (1840) original description and measurements exactly. It was figured for the first time as Owen's original specimen (holotype) by Spamer, Bogan & Torrens (1989, p. 144, pl. 13, figs. 1a–c).

8. The Assistant Curator of the Geological Collections of the University Museum, Oxford (P. Powell, written communications to H.S. Torrens, 1989, 1990) reported that the neotype vertebrae of *Ichthyosaurus trigonus* have not been recognized in those collections, although the register of holdings contains listings of others of Phillips's (1871) figured and cited specimens.

9. There is little evidence to show whether the holotype and neotype specimens of *Ichthyosaurus trigonus* are or are not of the same species. It is clear that Phillips (1871) and Lydekker (1889) believed that the vertebrae they figured represented this species. Riabinin (1912, figs. 1, 2) figured additional vertebrae which he assigned to this species. Lydekker (1889, fig. 12) and other workers (Bauer, 1898, pp. 325–326; Sauvage, 1912, pp. 434–440, fig. on p. 437) applied this specific name also to other skeletal elements. Bauer (1898, p. 288, pls. 25–27) also placed *I. posthumus* Wagner, 1852 as a variety of *I. trigonus*. Delair (1960, p. 64) presented a taxonomic synonymy and discussion of *I. trigonus*.

10. Article 75h states that 'if, after the designation of a neotype, the holotype... of the nominal species-group taxon is found still to exist, the case is to be referred to the Commission to rule whether the neotype is or is not to be retained as the name-bearing type'. Since the neotype has been lost and the redicovered holotype has now been figured and is available for study, it would be desirable for the Commission to rule that the rediscovered holotype should replace the neotype.

11. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to suppress the neotype designation made by Lydekker (1889) of the specimen(s) figured by Phillips (1871, diagrams cxxvi–cxxviii) for *Ichthyosaurus trigonus* Owen, 1840;

(2) to place on the Official List of Specific Names in Zoology the name *trigonus* Owen, 1840, as published in the binomen *Ichthyosaurus trigonus* (specific name of the type species of *Macropterygius* Huene, 1922) and as defined by the holotype ANSP 10124.

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Comment on the proposed conservation of *Epizoanthus* Gray, 1867 (Cnidaria, Anthozoa)

(Case 2750; see BZN **48**: 19–21)

Mark J. Grygier
Seto Marine Biological Laboratory, Kyoto University, Shirahama, Nishimuro, Wakayama 649–22, Japan

Ordinarily I would hesitate to set aside the principle of priority when such generally obscure animals as zoanthideans are involved. Furthermore, there have been so few taxonomic works published about zoanthideans in the last 50 years that a statement about the lack of use of the generic name *Sidisia* may not be very meaningful. However, on balance, I come out in favor of conserving the generic name *Epizoanthus* Gray, 1867 on the grounds that a name change may lead to confusion in the field of marine parasitology. The ascothoracidan crustacean family LAURIDAE are obligate parasites of zoanthideans and two species, *Laura dorsalis* Grygier, 1985 and *Zoanthoecus scrobisaccus* Grygier, 1990, have been described as parasites of *Epizoanthus* sp. and *Epizoanthus fatuus* (M. Schultze) respectively. I would be disappointed to see the hosts' names change on purely nomenclatural rather than taxonomic grounds.

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Comments on the proposed confirmation of a lectotype for *Lindholmiola barbata* (Férussac, 1821 or 1832) (Mollusca, Gastropoda)

(Case 2630; see BZN **47**: 101; **48**: 53)

(1) Dietrich Kadolsky
Meadowcroft, 54 Ewell Downs Road, Ewell, Surrey KT17 3BN, U.K.

Commenting on my application, Gittenberger (BZN **48**: 53) attempts to provide additional support for the assertion made by Gittenberger & Groh (1986) that *Helix (Helicigona) barbata* is an available name from Férussac (1821) rather than a nomen nudum and, accordingly, he requests the appropriate date changes in the application.

Contrary to the statement that in Férussac's (1821) work 'Greek letters were not used simply to indicate variants of an undescribed 'normal form' of a species', nearly all usages of Greek letters in the work can easily and consistently be interpreted to denote variants. The only exception is the parallel use of Greek lettering to denote monstrosities, which is expressly so stated in Férussac's work. In fact, many of the Greek letters would be difficult to explain otherwise. This includes Gittenberger's example of species no. 288, *Helix (Helicella) cretica*, for the words of the supposed description 'Alba, immaculata' can also be found under the preceding species, no. 287, *H. (H.) subrostrata*, here also preceded by the letter α. It is clear that in this case colour variants of two different species are described with the same words, but the two species themselves are not described.

Férussac did not use the term 'var' in his (1821) work, but he did on labels in his collection in the case of '*Helicigona barbata* var β) Brunnea', as mentioned by Gittenberger & Groh (1986) and myself (BZN **47**: 102).

Gittenberger & Groh's (1986) error referred to by me concerns only the inclusion in their list of syntype material of several lots of specimens of *Lindholmiola lens* which were not included in the 1821 or 1832 publications of the names *barbata* or *lens* respectively. A further error was that the term 'β) Brunnea' was considered by them to be part of the original diagnosis of *Lindholmiola barbata* and yet was listed simultaneously as the name of a variety on a label of one lot of 'syntypes' of *L. lens*.

I accept that Gittenberger's new view, that *barbata* α (1821) and *barbata* var. α (1832) are both *Lindholmiola barbata* from Kolpos Soúdhas ('La Sude'), is possibly true. In this case the diagnosis of *barbata* α ('minus depressa') has to be taken to mean 'smaller and depressed' instead of 'less depressed' (i.e. the opposite of what I (BZN **47**: 102) assumed). However, this does not alter the nomenclatural situation.

The question whether acceptance of the interpretation of Férussac (1821) proposed above upsets the stability of nomenclature in other cases should not be considered and has no bearing on this case. It may well be that additional applications to the Commission are required in connection with Férussac's other names; in the long run stability will best be served by a consistent application of the Code to problematical works.

The Commission could rule that *barbata* is available from 1821 instead of 1832, but such a ruling would require the use of the plenary powers to suspend Articles 12a and 72b(i). No advantage would be gained by this additional ruling and I therefore wish to retain my original application.

(2) Anthea Gentry
Secretariat, International Commission on Zoological Commission

In Opinion 336 (March 1955) *Helix lens* Férussac was ruled to be available from 1832, when the species was figured (pl. 66*, fig. 2), and not from 1821, when it was a nomen nudum. The date for pl. 66* followed that given by Kennard (1942, p. 110), and the name was included on the Official List of Specific Names in Zoology as '*lens* Férussac [1832]'.

The proposal to place *Helix lens* Férussac, 1832 on the Official List (BZN **47**: 103, para. 8) is therefore withdrawn from the present application.

Comments on the proposed confirmation of unavailability of the name *Fusus* Helbling, 1779 (Mollusca, Gastropoda)

(Case 2729; see BZN **48**: 92–96)

(1) L.B. Holthuis
Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands

I do not agree with the authors of this application that *Fusus* Helbling, 1779 is not a subgeneric name. All the arguments provided in favour of considering *Fusus* a 'cheironym' are based on speculations about Helbling's concepts. In the case of the intermediate names of Linnaeus and Fabricius the Commission made a special ruling (Opinion 279). In that Opinion Hemming (1954, p. 183) said 'I recognize that, in addition to Linnaeus and Fabricius, a number of xviiith-century authors placed between the generic and specific names of species intermediate terms identical in character with those which it is now asked should be rejected...'. Hemming continued 'it will be necessary for the specialists encountering these difficulties [in other cases] to make special application to the International Commission' for the suppression of the intermediate term concerned.

In my opinion Helbling's name *Fusus* is to be treated as a subgeneric name, unless it is suppressed under the plenary powers of the Commission. Glibert's action in 1963 to declare *Fusus* Helbling a nomen oblitum was incorrect as the name had been discussed by several authors, especially after 1906 (as mentioned in the application), and it certainly was not a forgotten name. Reading the application as one who is not well acquainted with mollusc taxonomy, I wonder whether such a suppression is necessary. The name *Fusinus* Rafinesque, 1815, according to para. 14 of the application, 'has been used by most authors since the publication of Dall's 1906 paper', and it would have to make way for *Fusus* Bruguière, 1789 if *Fusus* Helbling, 1779 were suppressed. Hardly a reason for that suppression.

(2) Emily H. Vokes
Department of Geology, Tulane University, New Orleans, Louisiana 70118, U.S.A.

I regret that I cannot support this application, as it is some 60 years too late. Had the proposal been made back when the change from *Fusus* Bruguière, 1789 to *Fusinus* Rafinesque, 1815 was first appearing in the scientific literature (e.g. Dall, 1909; Woodring, 1928) there would have been a great deal of merit in the idea. But to change back at this point, when every relevant work published in the last 60 years has used *Fusinus*, would be the height of folly.

I have a strong sense of 'déjà vu' about this application. Almost 30 years ago I reviewed (Vokes, 1964) the similar situation in the case of *Turbinella* Lamarck, 1779 and *Xancus* [Röding], 1798. In that case, after the Commission ruled (Opinion 96, 1926) that the names in Röding's *Museum Boltenianum* were available, most workers had reluctantly made the change from the long accepted name *Turbinella* to the much less known *Xancus*. Then, in 1956, an application (BZN **11**: 330–332) was made to suppress *Xancus* and restore *Turbinella*. Objections were made to the effect that for the previous 30 years workers had dutifully made the change and that to go back at that point would make the 'supposedly firm ground of priority... into a quagmire' (Keen, 1957, p. 167). In spite of the objections of every malacologist who wrote, the Commission suppressed *Xancus* in Opinion 489 (1957).

In the present case the period of usage of *Fusinus* has been over 60 years. Although Petit & Wilson may be correct in their interpretation of the name *Fusus* Helbling, to 'unscramble the omelet' at this late date would do more harm than good.

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Comment on the proposed conservation of *Ceratites nodosus* Schlotheim, 1813 (Cephalopoda, Ammonoidea)

(Case 2732; see BZN **48**: 31–35)

Gerhard Hahn
Berliner Strasse 31, D-3576 Rauschenberg, Germany

Ceratites nodosus as used today is a very important index fossil in the biostratigraphy of the Triassic Muschelkalkfacies. To shift the specific name *nodosus* to the taxon known today as *Ceratites* (*Doloceratites*) *robustus robustus* (as prescribed by the Code, following the paper of Rieber & Tozer, 1986) would seriously disturb biostratigraphic practice. Therefore I support the proposal of Dr Urlichs to conserve *C. nodosus* as used today.

Comments on the proposed conservation of the specific name of *Artemia franciscana* Kellogg, 1906 (Crustacea, Branchiopoda)

(Case 2728; see BZN **47**: 178–183; **48**: 57)

(1) Austin B. Williams
NOAA/NMFS Systematics Laboratory, NHB–163, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

The authors of this case have given a very thorough history of the names involved, *A. franciscana* and four senior subjective synonyms.

Leaving aside the nomen dubium *Artemia guildingi* Thompson, 1834, if *Artemia* from Great Salt Lake (presumably *A. fertilis* Verrill, 1869 and *A. utahensis* Lockington, 1876) are indistinguishable from *A. franciscana* Kellogg, 1906 of San Francisco Bay on the basis of morphology, cross-fertility and similarity of isozyme patterns, and specimens from either region are morphologically indistinguishable from *A. gracilis* Verrill, 1869 of New England, why not let Packard's (1883) and Amat Domenech's (1980) acceptance of the priority of *A. gracilis* prevail [see BZN **47**: 180, paras. 6 and 7]? The case seems to boil down to whether priority rules or convenience and ready availability of material overrules.

Verrill (1869a) stated, concerning his material from Connecticut, that 'In one tub, in which the water had a decidedly milky appearance, [specimens] were so abundant that hundreds could be obtained in a few minutes... Search was made in the pools from which the water had been taken, but no *Artemiae* were found, though doubtless from these places the progenitors of those inhabiting the tubs must have been taken'. These observations and Verrill's (1869b) later statements suggest that occurrence of *A. gracilis* in the tubs near New Haven was not a freak, though evidently a rarity in New England. Evaporation ponds for salt, once common in the east, are not so today, but if present conceivably could harbor the species. As stated in BZN **47**: 178, para. 2, Verrill described *A. gracilis* and his type material is in the Yale Peabody Museum.

(2) Thomas E. Bowman
Division of Crustacea, NHB–163, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

I agree that it is desirable to dispose of the names *guildingi*, based on a single specimen from an unspecified locality in the West Indies, and *gracilis*, from a region not inhabited by *Artemia* and which might have been introduced from either Europe or the western United States. That leaves available for the North American species the specific names *fertilis* Verrill, 1869, *utahensis* Lockington, 1876 and *franciscana* Kellogg, 1906. That these three names apply to a single species is clear from breeding and isozyme studies, and Bowen et al. (1978) should have followed the Code and used the oldest name, *fertilis*. Unfortunately, this action was perpetuated in the papers published subsequent to 1978 and cited by Belk & Bowen in their application.

Now the Commission is being asked to disregard priority and to legitimize a name that has been in use for the short period of about a dozen years. The Commission should not make Bowen & Belk's error permanent. By placing *guildingi* and *gracilis* on the Official Index and taking no other action, it could make *fertilis* the oldest available name and hence the valid name for the North American species of *Artemia*. This is the surest way to obtain stability in the long run.

(3) Joel W. Martin
Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, California 9007, U.S.A.

Belk & Bowen have presented a convincing case for giving precedence to *Artemia franciscana* Kellogg, 1906 over the previous but little used specific names *guildingi*, *gracilis*, *fertilis* and *utahensis*. In the interest of stability, because *A. franciscana* is already the commonly accepted name for the North American species of *Artemia*, I support the application.

(4) L.B. Holthuis
Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands

I know next to nothing about Branchiopoda, except that the nomenclature is in a mess.

Browne & Halanych (1989; *Crustaceana*, **57**(1): 57–71) used a most peculiar nomenclature, throwing out *A. salina* (on p. 59: 'The binomen *Artemia salina* (L., 1758) long used by many investigators, is no longer taxonomically valid'), and they used names like *A. tunisiana* and *A. parthenogenetica* (as well as *A. franciscana*) without any regard to the possible existence of older synonyms. I believe that until the whole of the taxonomy and nomenclature of the *Artemia* species is reviewed, it is rather senseless to deal with the single species *A. franciscana* and leave the rest as messy as it is now.

I believe that it is imperative that the present question as well as the general nomenclatural situation concerning the species of *Artemia* be brought to the attention of as many workers in the field as possible. This is a case, I believe, where the Commission will be rather helpless if not supported by a massive reaction by the workers in the field.

Before knowing their response I cannot express a definite opinion on this question.

(5) Gary C.B. Poore
Curator of Crustacea, Museum of Victoria, 71 Victoria Crescent, Abbotsford, Victoria 3067, Australia

Belk & Bowen have, in the case of *Artemia franciscana*, illustrated how easily popular usage can overtake strict adherence to the rules of priority. In cases where names are little used nothing is lost by enforcing the rules and reintroducing the oldest name. But here is a species which is the subject of a wide range of biological investigation. For the biologists involved a stable nomenclature is essential. If they are to build on the extensive work already done there seems nothing to be gained by reverting to a little known name. In days when retrospective computer searches of bibliographic databases are commonplace it is essential that nomenclature be consistent even if not faithful to the rules.

I support the application.

Editorial Note. The comments above are from members of the Nomenclature Committee of The Crustacean Society; the Secretary of this is Dr G.C.B. Poore, whose address is given above.

Comments on the proposed designation of *Agathis longicauda* Boheman, 1853 as the type species of *Vipio* Latreille, 1804 (Insecta, Hymenoptera)

(Case 2614; see BZN **48**: 45–49)

(1) C. van Achterberg
Nationaal Natuurhistorisch Museum, P.O. Box 9517, 2300 RA Leiden, The Netherlands

The extremely complicated history of the name *Vipio* Latreille, 1804 and its type species, *Ichneumon desertor* Linnaeus, 1758, is clearly summarized in the application by Wharton & Mason. The problem is that most authors in the last century refer to Fabricius (1775) as the author of *Ichneumon desertor* but '*Ichneumon desertor* Fabricius' does not exist. In 1775 Fabricius merely repeated Linnaeus's description; that he added an incorrect reference to Schaeffer (1769) indicates only that he had conflicting ideas about *desertor*. In his collection there are several species under the name '*desertor*', even one belonging to the ICHNEUMONIDAE. The use by later authors of '*Ichneumon desertor* Fabricius' as the type species of *Vipio* is therefore unjustified. Fabricius (1775) neither gave a description of *desertor* of his own, nor had he a clear idea about Linnaeus's species. Consequently, it is justified to use *I. desertor* Linnaeus, 1758 as the nominal type species, in which case no action is needed by the Commission.

For reasons of stability this is a valid option because several authors (of the small number involved in the taxonomy of the groups concerned) agree on the need for a change and the two genera involved are comparatively small.

I know of 13 publications since 1982 on the subfamily BRACONINAE including the genus group *Vipio* auctt. Only five refer to it as *Vipio*: Marsh, Shaw & Wharton, 1987 (key to Nearctic genera); Papp, 1989, 1990a, 1990b (faunistic data only); Quicke & Sharkey, 1989 (key to Nearctic genera). Six papers refer to the oldest name available for the group, *Isomecus* Kriechbaumer, 1895: Papp, 1984 (faunistic data); Quicke, 1987 (extensive revision of the Palaeotropical genera), 1988 (morphological study), 1989 (faunistic data), 1990 (morphology); Quicke & van Achterberg, 1990 (list of type specimens). In two papers the next available name (*Zavipio* Viereck, 1914) is used: Tobias, 1986 (extensive keys to the genera and species of Palaearctic BRACONINAE); Tobias & Potapova, 1987 (morphology). Concerning the AGATHIDINAE, I know of five papers including *Vipio* Latreille, 1804 published since 1982; three papers use *Vipio* in its proper sense of the type species: Tobias, 1986 (extensive keys); Tobias & Potapova, 1987 (morphology); Simbolotti & van Achterberg, 1990. In two papers its junior synonym *Cremnops* Foerster, 1862 is used: Tobias, 1989 (short survey); Chou & Sharkey, 1989 (key to Taiwanese genera).

Few papers including the names *Vipio* and *Cremnops* are written by non-taxonomists and a change according to the nominal type species will not cause any substantial problem. Both groups are in need of complete revision and nomenclatural stability will be reached only after this has been accomplished. Stability in the taxonomy of the BRACONIDAE is far out of reach; for example, thousands of species (partly used in biological control and ecological research) recently changed genus because of a publication by Mason (1981).

As the Code is strictly followed in my solution, namely treating *Ichneumon desertor* Linnaeus, 1758 as the type species of *Vipio*, no action by the Commission is necessary.

Additional references

Chou, L.-Y. & Sharkey, M.J. 1989. The Braconidae (Hymenoptera) of Taiwan. 1. Agathidinae. *Journal of the Taiwan Museum*, **42**: 147–233.

Mason, W.R.M. 1981. The polyphyletic nature of *Apanteles* Foerster (Hymenoptera: Braconidae): a phylogeny and reclassification of Microgastrinae. *Memoirs of the Entomological Society of Canada*, **115**: 1–147.

Papp, J. 1984. Braconidae (Hymenoptera) from Mongolia, X. *Acta Zoologica Academiae Scientiarum Hungaricae*, **30**: 445–468.

Papp, J. 1989. A contribution to the braconid fauna of Israel (Hymenoptera), 2. *Israel Journal of Entomology*, **22**: 45–49.

Papp, J. 1990a. Braconidae (Hymenoptera) from Tunisia, 3. *Folia Entomologica Hungarica*, **51**: 89–96.

Papp, J. 1990b. Braconidae (Hymenoptera) from Greece, 3. *Annales Musei Goulandris*, **8**: 269–290.

Quicke, D.L.J. 1988. Inter-generic variation in the male genitalia of the Braconinae (Hymenoptera, Braconidae). *Zoologica Scripta*, **17**: 399–409.

Quicke, D.L.J. 1989. Further host records for genera and species of Braconinae (Hymenoptera, Braconidae). *Entomologist's Monthly Magazine*, **125**: 199–205.

Quicke, D.L.J. 1990. Tergal and inter-tergal metasomal glands of male braconine wasps (Insecta, Hymenoptera, Braconidae). *Zoologica Scripta*, **19**: 413–423.

Quicke, D.L.J. & van Achterberg, C. 1990. The type specimens of Enderlein's Braconinae (Hymenoptera: Braconidae) housed in Warsaw. *Tijdschrift voor Entomologie*, **133**: 251–264.
Simbolotti, G. & van Achterberg, C. 1990. Revision of the *Euagathis* species (Hymenoptera: Braconidae) from Sulawesi. *Zoologische Verhandelingen, Leiden*, **256**: 1–35.
Tobias, V.I. 1986. Opredelitel nasekomych evropeiskoi tsasmi SSSR, vol. 3 (Hymenoptera), part 4. *Opredeliteli po Faune SSR, Izdavaemye Zoologicheskim Muzeem*, **145**: 1–501.
Tobias, V.I. 1989. Die Braconidae des europäische Teils der UdSSR. Pp. 278–279 *in*: *Verhandlingen IX SIEEC, Gotha, 1986*.
Tobias, V.I. & Potopova, E.S. 1987. Labiomaksilljarnij kompleks brakonid (Hymenoptera, Braconidae), ego evoljutsija i taksonomitseskoe znatsenie. *Trudy Vsesoyuznogo Entomologicheskogo Obshchestva*, **69**: 190–208.

(2) Michael J. Sharkey
Biosystematics Research Centre, K.W. Neatby Building, C.E.F. Ottawa, Ontario, Canada K1A 0C6

I write in support of the application by Wharton & Mason to maintain the current usage of *Cremnops* Foerster, 1862. I have been publishing on various taxa within the AGATHIDINAE, including *Cremnops*, for about 10 years and will continue to do so for the foreseeable future. I am therefore concerned that the name *Vipio* Latreille, 1804, long established in the BRACONINAE, may be transferred to the AGATHIDINAE to replace *Cremnops*.

This would serve no purpose other than to confuse the literature of the two subfamilies and indeed to confuse the identity of the genus *Vipio*.

Comment on the need for stability in fish family-group names

(See BZN **47**: 97–100, 138, 295–296; **48**: 147–148)

John R. Paxton & Jeffrey M. Leis
Division of Vertebrate Zoology, Australian Museum, 6–8 College Street, Sydney, New South Wales 2000, Australia

We agree with Wheeler (BZN **47**: 97–100) that family names are important and see merit in his call for an international committee to consider the grammatically correct forms proposed by Steyskal (1980). We are also in agreement with Olson (BZN **47**: 296) on the value of grammatically correct names.

We are in total disagreement with Randall's recommendation (BZN **47**: 295) that all of these spellings be rejected. While Randall cites his comprehensive book (Randall, Allen & Steene, 1990) as one not using the emended names, we can cite ours (Leis & Trnski, 1989; Paxton, Hoese, Allen & Hanley, 1989) as books that do.

The important point is that the emended names are being used validly under the Code by many in the ichthyological community, and cannot be ignored or subjectively dismissed. Nor should the issue of the use of these emended names be decided by assembling lists of publications either using or not using them. A case for changing the Code to deal with such emended names so as to avoid controversy and potential confusion could be argued, but in the present situation this would very much be a case of 'closing the barn door after the horse had bolted'.

Additional references

Leis, J.M. & Trnski, T. 1989. *The larvae of Indo-Pacific shorefishes.* 371 pp. New South Wales University Press, Sydney.

Paxton, J.R., Hoese, D.F., Allen, G.R. & Hanley, J.E. 1989. *Zoological catalogue of Australia,* part 7 (Pisces Petromyzontidae to Carangidae). 665 pp. Australian Government Publishing Service, Canberra.

Randall, J.E., Allen, G.R. & Steene, R.C. 1990. *Fishes of the Great Barrier Reef and Coral Sea.* 507 pp. Crawford House Press, Bathurst.

Comments on the proposed conservation of *Acanthophthalmus* van Hasselt in Temminck, 1824 (Osteichthyes, Cypriniformes) with *Cobitis kuhlii* Valenciennes in Cuvier & Valenciennes, 1846 as the type species

(Case 2738; see BZN **47**: 118–121; **48**: 59–65)

(1) Rohan Pethiyagoda
The Wildlife Heritage Trust of Sri Lanka, 36/2 Castle Street, Colombo 8, Sri Lanka

I have read the observations of Ng, Munro & Lim and Kottelat (BZN **48**: 59–62) on the application by Burridge, Siebert & Ferraris. I have also read the arguments of Siebert and of Hieronimus, Schmidt & Steinle (BZN **48**: 63–64). While being in complete agreement with the views expressed by Kottelat and Ng et al. I wish to draw the attention of the Commission to some broader issues which I feel it should take into consideration in deciding this case.

1. After many decades of neglect the fishes of South and Southeast Asia are now again receiving the attention of ichthyologists. The most recent technical literature on much of the oriental ichthyofauna is more than a century old. Many areas of this geographically and politically complex region are, or until recently have been, difficult to access and work in. However, during the past decade a few workers have been successful in penetrating some of the more remote areas and making useful studies; M. Kottelat and T.R. Roberts are notable in this respect. It is evident from the publications of Kottelat (1989, 1990) and Roberts (1989) that the information available in the literature on the fishes of this region up to now has been far from accurate and certainly not complete. A great deal of revisionary work is required, and much work is already in progress. These revisions have resulted, and will continue to result, in many fundamental changes to the nomenclature. I have shown (Pethiyagoda, 1991) that of the primary freshwater fishes of Sri Lanka the names of some 30% of the taxa have changed from the most recent revision (1955). The replacement of *Acanthophthalmus* van Hasselt in Temminck, 1824 by *Pangio* Blyth, 1860 has not caused 'considerable confusion' as alleged by Burridge et al. and is unlikely to do so in any way. If this were the case any taxonomic revision would be futile. I cannot conceive of any competent taxonomist being confused by the recommendation of Kottelat (1987); not even the chaotic alpha-level taxonomy of the minor Asiatic cyprinids seems to have caused 'considerable confusion'.

2. Contrary to the view adopted by Burridge et al. many of the more responsible catalogues and guides do take particular pride in ensuring that they adopt the most up-to-date nomenclature. As Ng et al. have pointed out, changes in the generic placement of commonly exploited fishes such as *Poecilia reticulata* and *Sarotherodon mossambicus*

have been widely accepted by the popular literature, including that concerning the fishery. It is noteworthy that the synonymy of *Oncorhynchus mykiss* with *Salmo gairdneri* was reported (Gall & Groot, 1990; see BZN **48**: 59) in a fisheries-related journal and not one associated with systematics. Siebert's contention that these examples are irrelevant is not justified; while they are not quoted by way of precedents, they serve to demonstrate that the scientific community is well fitted to the absorption of nomenclatural revision, rather than being confused by it. Even Schmidt & Steinle appear to have experienced only a belated change of heart, having followed Kottelat in using *Pangio* in 1989 (see BZN **48**: 64); were they not as 'confused' by this 'discontinuity' in 1989 as they appear to be now in 1991?

3. In the event of the petition by Burridge et al. being upheld, those workers presently involved in systematic research of the Oriental ichthyofauna would be compelled to submit many of their recommendations, even when consistent with the provisions of the Code, to the Commission as a matter of routine, thus delaying significantly the publication of their results.

4. Even if Burridge et al. have established a prima facie case in terms of Article 79c(1) and (2) (and this is not clear from their petition), their arguments do not reach beyond the minimum requirements for a case. While the Commission is not bound by precedent, it is clear that a decision in favour of Burridge et al. would be a retrograde step. If the retention of *Pangio* were to introduce complicating factors such as homonymy or synonymy, use of the plenary powers would certainly be necessary. The indiscriminate invocation of the Commission's plenary powers, on the other hand, could in itself now result in the considerable confusion feared by Burridge et al.

This case is one in which the Principle of Priority may be upheld without causing confusion or instability; the fact that publications following Kottelat (1987) have adopted *Pangio* without adverse comment is evidence of this. In place of the proposals on BZN **47**: 120, the International Commission on Zoological Nomenclature is asked:

(1) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Acanthophthalmus* van Hasselt in Temminck, 1824 (a junior objective synonym of *Cobitis* Linnaeus, 1758).

Additional reference

Pethiyagoda, R. 1991. *Freshwater fishes of Sri Lanka.* xiv, 362 pp. Wildlife Heritage Trust, Colombo.

(2) Rainer Stawikowski
Siegfriedstrasse 14, 4650 Gelsenkirchen, Germany

I fully agree with Ng, Munro & Lim (BZN **48**: 60) who expect that aquarists 'should be able to cope with nomenclatural changes', if they 'are really interested in learning the scientific names of their fish'. In fact, they *are* able to do so. My experience as editor of a leading aquarium magazine (*DATZ, Die Aquarien- und Terrarien-Zeitschrift*), with a circulation of over 40,000 copies monthly, demonstrates this. Since we have adopted the completely-changed name for the rainbow trout, *Oncorhynchus mykiss* (Walbaum, 1792), to cite one example among others, there have been neither problems nor confusion.

I cannot agree with Hieronimus, Schmidt & Steinle (BZN **48**: 64) who state that conservation of the name *Acanthophthalmus* van Hasselt in Temminck, 1824 for the coolie loaches would 'avoid confusion and discontinuity'. On the contrary, from my experience those aquarists who are interested in nomenclature are eager to learn *any* new name, if only to be 'up to date'. Therefore in my opinion the Principle of Priority should be the only basis for a decision in this case.

Comment on the proposed precedence of HOMALOPTERIDAE Bleeker, 1859 over BALITORIDAE Swainson, 1839 (Osteichthyes, Cypriniformes)

(Case 2703; see BZN **47**: 277–279; **48**: 148–150)

Harro Hieronimus
P.O. Box 170243, Nachtigallenweg 52, D-W-5650 Solingen 1, Germany

Of course the Principle of Priority as expounded in Article 79 of the Code is one of the main principles of nomenclature. However, the current edition of the Code (1985, p. xiv) also notes: 'Nomenclatural rules are tools that are designed to provide the maximum stability compatible with taxonomic freedom. Accordingly they must also enable the Principle of Priority to be set aside in particular cases when the application of the Principle would be destructive of stability or universality, or would cause confusion'. In the case which I referred to the Commission the priority of a name had been overlooked for about 150 years and this name is thus a good example to except from the Principle of Priority.

In their comment Ng & Lim refer to my proposal as an attempt to keep a familar aquarium name (see BZN **48**: 149). This is, in fact, an argument in favour of my proposal; nomenclature should be available and widely accepted by non-scientists as well as by specialists. Ng & Lim also refer to the listings of the name HOMALOPTERIDAE in *Zoological Record* between 1977 and 1989. They found 41 papers using the name and only seven (less than one per year, about 17%) were aquaristic papers. Naturally the name HOMALOPTERIDAE has been used in several more aquaristic books and magazines; BALITORIDAE was an unknown synonym until 1989.

Finally, the use of the name BALITORIDAE by four authors (Kottelat, Lim, Ng and Munro), as cited in Ng & Lim's comment, does not demonstrate wide acceptance of the 'new' name.

Comments on the proposed fixation of masculine gender for the generic name *Lepomis* Rafinesque, 1819 (Osteichthyes, Perciformes)

(Case 2715; see BZN **47**: 280–282)

(1) Reeve M. Bailey
Museum of Zoology, The University of Michigan, Ann Arbor, Michigan 48109–1079, U.S.A.

Irrespective of Rafinesque's intent, *Lepomis* could have been properly formed from the Greek *lepis* (scale) and *omis* (a fish), as mentioned in BZN **47**: 280, para 3. Since the name ends in the feminine suffix *-omis* it is feminine under Article 30b of the Code. The sole significant reason for fixing it as masculine is the highly consistent treatment over the past several decades. The American Fisheries Society Committee on Names discussed the case at length in Spring 1990 and agreed unanimously that while *Lepomis* was feminine under the Code, nevertheless under Article 80 it was appropriate to continue its prevalent use as masculine until the the Commission issues a decision. My personal feeling is that minor changes in suffix of specific names are not traumatic and would be quickly adopted after appropriate publication in (for example) *Copeia* and *Fisheries*, plus letters to a few journal editors. I would of course abide by whatever ruling is given by the Commission.

(2) C. Richard Robins
Rosensteil School of Marine and Atmospheric Science, 4600 Rickenbacker Causeway, Miami, Florida 33149–1098, U.S.A.

The proposal to treat *Lepomis* as masculine is in the best interests of nomenclatural stability. Many of the species of *Lepomis* have a vast literature, and it serves no purpose to change *L. gibbosus* (for example) to *L. gibbosa*. The American Fisheries Society Special Publication 20, *Common and Scientific Names of Fishes from the United States and Canada* (fifth edition), appeared in May 1991; I am the first author and Reeve M. Bailey is the second. In it *Lepomis* is treated as masculine pending a Commission ruling. This is the most widely used sourcebook of fish names in North America, and will in effect stabilize the names for the next ten years. I urge the Commission to support the application.

(3) Support for the application has been received from Prof George C. Becker (*2100 Pleasant Hill Road, Kissimmee, Florida 34746, U.S.A.*), Prof Brooks M. Burr (*Department of Zoology, Southern Illinois University, Carbondale, Illinois 62901–6501, U.S.A.*), Dr Carter G. Gilbert (*Department of Natural Sciences, University of Florida, Gainesville, Florida 32611–2035, U.S.A.*), Dr Robert E. Jenkins (*Department of Biology, Roanoke College, Salem, Virginia 24153, U.S.A.*), Dr Richard L. Mayden (*Department of Biology, College of Arts and Sciences, The University of Alabama, Box 870344, Tuscaloosa, Alabama 35487–0344, U.S.A.*) and Dr Lawrence M. Page (*Illinois Natural History Survey, 172 Natural Resources Building, 607 East Peabody Drive, Champaign, Illinois 61820, U.S.A.*).

Comments on the proposed conservation of the specific name *Coccyzus euleri* Cabanis, 1873 (Aves, Cuculiformes)

(Case 2727; see BZN **47**: 195–197; **48**: 155–156).

(1) E.O. Willis & Y. Oniki
Departamento de Zoologia, Universidade Estadual Paulista, C.P. 178 Rio Claro 13500, São Paulo, Brazil

We appreciate the comment by Banks (BZN **48**: 156) that he did not personally apply to suppress the name *Coccyzus julieni* Lawrence, [1864] because it had been used a few times in the last 50 years. We continue to urge that the name be suppressed due to its limited use, the inconvenience that its use would cause ornithologists everywhere, and the fact the both Pinto (1978) and Greenway (1978) returned to *euleri* Cabanis, 1873 after using *julieni.* We further note confusing uses of the name *julieni.* Cory's (1919) important book on South American birds put *euleri* and *C. americanus julieni* as sympatric species, Hellmayr (1929) implied that *euleri* was a separate species but *julieni* a mere synonym of nominate *americanus* from North America, while Ridgeway (1916) included *julieni* as a South American subspecies of *americanus* and a senior synonym of *euleri.* As far as we now know, nominate *americanus* from North America winters in South America, at times at canopy edges next to *euleri* breeding in the canopy, but does not nest there. For a specific example of confusion, Pereyra (1933) reported *americanus* nesting in Argentina, perhaps referring to Ridgeway's use of *julieni*, but he could have had an unusual nesting northern migrant (*julieni* sensu Cory); only the unambiguous name *euleri* would have left no doubt.

Additional reference

Pereyra, J.A. 1933. Miscelanea ornitologica. *Hornero*, **5**: 215–219.

(2) Kenneth C. Parkes & D. Scott Wood
The Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburg, Pennsylvania 15213, U.S.A.

Some might be tempted to use the argument that the change of name from *Coccyzus euleri* Cabanis, 1873 to *C. julieni* Lawrence, [1864] for the pearly-breasted cuckoo, based on strict priority, would affect only a few specialists. A holotype for *julieni* exists, and nobody appears to have questioned its re-identification by Banks (1988) as a pearly-breasted cuckoo. Nevertheless, considering the previous uncertainty about the holotype and its taxonomic status as expressed in the references cited by Willis & Oniki (BZN **47**: 196–197), the suppression of the name *C. julieni* and retention of the unequivocal and universally used name *C. euleri* is desirable for stability. The literature of South American birds is expanding rapidly and it is clearly undesirable to introduce a completely unfamiliar name for the pearly-breasted cuckoo at this point. We support the proposal of Willis & Oniki.

OPINION 1649

Pleuractis Verrill, 1864 (Cnidaria, Anthozoa): *Fungia paumotensis* Stutchbury, 1833 designated as the type species

Ruling

(1) Under the plenary powers all previous designations of type species for the nominal genus *Pleuractis* Verrill, 1864 are hereby set aside and *Fungia paumotensis* Stutchbury, 1833 is designated as the type species.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

- (a) *Pleuractis* Verrill, 1864 (gender: feminine), type species by designation in (1) above *Fungia paumotensis* Stutchbury, 1833;
- (b) *Lobactis* Verrill, 1864 (gender: feminine), type species by original designation *Fungia dentigera* Leuckart, 1841 (a junior subjective synonym of *Fungia scutaria* Lamarck, 1801).

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *paumotensis* Stutchbury, 1833, as published in the binomen *Fungia paumotensis* and as defined by the neotype designated by Hoeksema (1989) (specific name of the type species of *Pleuractis* Verrill, 1864);
- (b) *scutaria* Lamarck, 1801, as published in the binomen *Fungia scutaria* and as defined by the neotype designated by Hoeksema (1989) (senior subjective synonym of *Fungia dentigera* Leuckart, 1841, the type species of *Lobactis* Verrill, 1864).

History of Case 2714

An application for the designation of *Fungia paumotensis* Stutchbury, 1833 as the type species of *Pleuractis* Verrill, 1864 was received from Dr B.W. Hoeksema (*Nationaal Natuurhistorisch Museum, Leiden, The Netherlands*) on 27 February 1989. After correspondence the case was published in BZN **47**: 6–8 (March 1990). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 7. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Nye.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Lobactis Verrill, 1864, *Bulletin of the Museum of Comparative Zoology*, **1**: 52.

paumotensis, Fungia, Stutchbury, 1833, *Transactions of the Linnean Society of London*, **16**: 495.
Pleuractis Verrill, 1864, *Bulletin of the Museum of Comparative Zoology*, **1**: 52.
scutaria, Fungia, Lamarck, 1801, *Système des animaux sans vertèbres*, p. 370.

The following is the reference for the designation of the neotype of *Fungia paumotensis* Stutchbury, 1833:

Hoeksema, B.W. 1989. *Zoologische Verhandelingen, Leiden*, **254**: 145.

The following is the reference for the designation of the neotype of *Fungia scutaria* Lamarck, 1801:

Hoeksema, B.W. 1989. *Zoologische Verhandelingen, Leiden*, **254**: 131.

OPINION 1650

CYMATIINAE Iredale, 1913 (1854) (Mollusca, Gastropoda) and CYMATIINAE Walton in Hutchinson, 1940 (Insecta, Heteroptera): homonymy removed

Ruling

(1) Under the plenary powers it is hereby ruled that for the purposes of Article 29 of the Code the stem of the generic name *Cymatia* Flor, 1860 is CYMATIA-.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

(a) *Cymatium* [Röding], 1798 (gender: neuter), type species by subsequent designation by Dall (1904) *Murex femorale* Linnaeus, 1758;

(b) *Cymatia* Flor, 1860 (gender: feminine), type species by subsequent designation by Kirkaldy (1898) *Sigara coleoptrata* Fabricius, 1777.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *femorale* Linnaeus, 1758, as published in the binomen *Murex femorale* (specific name of the type species of *Cymatium* [Röding], 1798);

(b) *coleoptrata* Fabricius, 1777, as published in the binomen *Sigara coleoptrata* and as interpreted by the lectotype designated by Jansson (1986) (specific name of the type species of *Cymatia* Flor, 1860).

(4) The following names are hereby placed on the Official List of Family-Group Names in Zoology:

(a) CYMATIINAE Iredale, 1913 (1854), type genus *Cymatium* [Röding], 1798;

(b) CYMATIAINAE Walton in Hutchinson, 1940, type genus *Cymatia* Flor, 1860 (spelling emended by the ruling in (1) above).

(5) The name CYMATIINAE Walton in Hutchinson, 1940 is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology (spelling emended to CYMATIAINAE in (1) above).

History of Case 2547

.An application to remove the homonymy of CYMATIINAE Iredale, 1913 (1854) (Mollusca) and CYMATIINAE Walton in Hutchinson, 1940 (Insecta) was received from Drs A. Jansson (*Zoological Museum, Helsinki, Finland*) & A.G. Beu (*New Zealand Geological Survey, Lower Hutt, New Zealand*) on 16 December 1985. After correspondence the case was published in BZN **47**: 9–11 (March 1990).

An earlier application (Case 1939, BZN **28**: 59–61) by Drs W.O. Cernohorsky & A.G. Beu sought to conserve usage of the gastropod name CYMATIIDAE Iredale, 1913 at family rank, rather than RANELLIDAE Gray, 1854. Several complications subsequently came to light and in 1986 those authors adopted RANELLIDAE as the name for the family. The name CYMATIINAE is in use for the subfamily which includes *Cymatium* [Röding], 1798, and in their 1986 paper Cernohorsky & Beu adopted it, mentioning Article 40b(i) of the Code. CYMATIINAE should be cited with the authorship and precedence Iredale, 1913 (1854). The subsequent application, by Jansson & Beu, sought only to remove the homonymy between CYMATIINAE Iredale, 1913 (1854) (Mollusca) and CYMATIINAE Walton in Hutchinson, 1940 (Insecta). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 10. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 4: Dupuis, Halvorsen, Heppell and Minelli.

Heppell commented: 'I vote against the application, firstly on a matter of detail, and secondly on a matter of principle. It is customary for family-group names added to the Official List to be entered in a form corresponding to their rank when originally established, with correction of original spelling where necessary. Thus in this case the names proposed for addition to the Official List should be CYMATIIDAE Iredale, not CYMATIINAE, and CYMATIAINI Walton (correction of CYMATIINI), not CYMATIAINAE. I see no reason (and none is proposed) for departing from this convention in this case. As categories within the family group are coordinate, homonymy would exist even if the two taxa were not both presently ranked as subfamilies. The applicants have indicated that the Code permits no real alternative to their proposal, as there would be no case for basing an alternative corixid subfamily name on *Cnethocymatia*. Although the consequences of a vote against this application have not been indicated, it must be assumed that the status quo would be maintained. As family-group names with the stem CYMATI- have coexisted in Gastropoda and Heteroptera for more than 50 years without any evidence of inconvenience being adduced (and no argument on such grounds is presented by the applicants) I would suspect that the change of stem of the corixid name would precipitate the very instability and inconvenience the applicants seek to prevent. Any future data search relating to the corixid subfamily would have to be for both CYMATIAINAE and CYMATIINAE, as complete abandonment of the latter spelling could never be assumed, and the occasional accidental capture of data pertaining to the gastropod subfamily might be preferred. Normally this would be eliminated by context or hierarchical search fields. The publication of this application seems particularly premature at the present time when extensive revision of the Code provisions concerning family-group names is expected in the near future. I would prefer to recommend that discrimination between the two names should be by the use of some formula such as CYMATIINAE (Mollusca) and CYMATIINAE (Insecta), rather than upset half a century of stable usage by a provision (Article 55) of the Code widely regarded as unsatisfactory'.

Minelli commented: 'The proposed name(s) CYMATIAINAE lacks the euphony of MEROPEIDAE and the like, as in the example to Article 55. I prefer resurrecting available synonyms to introducing new 'barbarous' spellings'.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

coleoptrata, *Sigara*, Fabricius, 1777, *Genera insectorum eorumque characteres naturales secundum numerum, figuram,....*, p. 298.

Cymatia Flor, 1860, *Die Rhynchoten Livlands*, vol. 1, p. 799.

CYMATIAINAE Walton in Hutchinson, 1940, *Transactions of the Connecticut Academy of Arts and Sciences*, **33**: 344 (as CYMATIINI).
CYMATIINAE Iredale, 1913, *The Nautilus*, **27**: 56.
Cymatium [Röding], 1798, *Museum Boltenianum, sive catalogus cimeliorum e tribus regnis naturae quae olim collegerat joa. Fried. Bolten*...pars secunda, p. 129.
femorale, *Murex*, Linnaeus, 1758, *Systema naturae*, Ed. 10, vol. 1, p. 749.

The following is the reference for the designation of *Murex femorale* Linnaeus, 1758 as the type species of the nominal genus *Cymatium* [Röding], 1798:
Dall, W.H. 1904. *Smithsonian Miscellaneous Collections*, **47**: 133.

The following is the reference for the designation of *Sigara coleoptrata* Fabricius, 1777 as the type species of the nominal genus *Cymatia* Flor, 1860:
Kirkaldy, G.W. 1898. *Entomologist*, **31**: 252.

The following is the reference for the designation of the lectotype of *Sigara coleoptrata* Fabricius, 1777:
Jansson, A. 1986. *Acta Entomologica Fennica*, **47**: 20.

OPINION 1651

Mytilus anatinus Linnaeus, 1758 (currently *Anodonta anatina*; Mollusca, Bivalvia): neotype designation confirmed

Ruling

(1) Under the plenary powers all previous fixations of type specimens for the nominal species *Mytilus anatinus* Linnaeus, 1758 are hereby set aside and the neotype designation by Mordan & Woodward (1990) is confirmed.

(2) The following endorsements are hereby made to the Official List of Specific Names in Zoology:

- (a) the words 'as defined by the neotype designated by Mordan & Woodward (1990)' are added to the entry for *Mytilus anatinus* Linnaeus, 1758;
- (b) the words 'as defined by the lectotype designated by Bloomer (1938)' are added to the entry for *Mytilus cygneus* Linnaeus, 1758.

History of Case 1643

An application for the designation of a neotype for *Mytilus anatinus* Linnaeus, 1758 was received from Dr H. Lemche (*University of Copenhagen, Denmark*) in 1964 and published in BZN **21**: 432–434. The subsequent history of this proposal was summarised in BZN **47**: 111–112. A new application was received from Dr P.B. Mordan (*The Natural History Museum, London, U.K.*) & Mr F.R. Woodward (*Art Gallery and Museum, Kelvingrove, Glasgow, U.K.*) on 6 March 1990. After correspondence the case was published in BZN **47**: 110–113 (June 1990). The application was supported by a number of molluscan specialists (see BZN **47**: 112, para. 11). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 112–113. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Dupuis and Starobogatov.

Starobogatov commented: 'I vote against Dr Mordan's and Mr Woodward's proposal because the [taxonomic] problem is not solved by the decision of the Commission. The adult shells of some UNIONIDAE differ from each other less than their glochidial shells. When the neotype is based only on the adult shell we are not sure to what species it belongs. It would have been better to establish the neotype on a shell for which the glochidial shell is precisely described'. Dr Starobogatov's comment and accompanying information was sent to Dr Mordan and Mr Woodward, who replied that at present it was not feasible, and in their taxonomic view not necessary, to use glochidial material in the typification of *Mytilus anatinus* and *M. cygneus*.

References

The following is the reference for the designation of the neotype of *Mytilus anatinus* Linnaeus, 1758:

Mordan, P.B. & Woodward, F.R. 1990. *Bulletin of Zoological Nomenclature*, **47**: 112.

The following is the reference for the designation of the lectotype of *Mytilus cygneus* Linnaeus, 1758:

Bloomer, H.H. 1938. *Journal of Conchology*, **21**: 39.

OPINION 1652

Griffithides Portlock, 1843 (Trilobita): *Griffithides longiceps* Portlock, 1843 confirmed as the type species, and *Bollandia* Reed, 1943 (Trilobita): conserved

Ruling

(1) Under the plenary powers all designations of type species for the nominal genus *Griffithides* Portlock, 1843 prior to that by Vogdes (1890) of *Griffithides longiceps* Portlock, 1843 are hereby set aside.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

- (a) *Bollandia* Reed, 1943 (gender: feminine), type species by original designation *Asaphus globiceps* Phillips, 1836;
- (b) *Griffithides* Portlock, 1843 (gender: masculine), type species by subsequent designation by Vogdes (1890) *Griffithides longiceps* Portlock, 1843, as ruled in (1) above.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *globiceps* Phillips, 1836, as published in the binomen *Asaphus globiceps* (specific name of the type species of *Bollandia* Reed, 1943);
- (b) *longiceps* Portlock, 1843, as published in the binomen *Griffithides longiceps* (specific name of the type species of *Griffithides* Portlock, 1843).

History of Case 2762

An application for the confirmation of *Griffithides longiceps* Portlock, 1843 as the type species of *Griffithides* Portlock, 1843 was received from Dr Gerhard Hahn (*Institut für Geologie und Paläontologie, Marburg, Germany*) on 26 February 1990. After correspondence the case was published in BZN **47**: 114–116 (June 1990). Notice of the case was sent to appropriate journals.

Comments in support from Sir James Stubblefield (*Ealing, London, U.K.*) and Prof H.B. Whittington (*University of Cambridge, Cambridge, U.K.*) were published in BZN **47**: 216 (September 1990). Further comments in support from Dr B.A. Engel (*University of Newcastle, Newcastle, Australia*), Dr. C. Brauckmann (*Wuppertal Fuhlrott-Museum, Wuppertal, Germany*) and Mr S.F. Morris (*The Natural History Museum, London, U.K.*) were published in BZN **47**: 293 (December 1990). A further comment in support was received from Drs N.J. Riley & A.W.A. Rushton (*British Geological Survey, Keyworth, U.K.*).

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 115. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Uéno, Willink

Negative votes — none.

No votes were received from Starobogatov and Trjapitzin.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Bollandia Reed, 1943, *Annals and Magazine of Natural History*, (11)**10**: 62.

globiceps, Asaphus, Phillips, 1836, *Illustrations of the geology of Yorkshire; or, a description of the strata and organic remains: accompanied by a geological map, sections, and diagrams, and figures of the fossils*, part 2 (The Mountain Limestone District), p. 240.

Griffithides Portlock, 1843, *Report on the geology of the county of Londonderry, and of parts of Tyrone and Fermanagh*, p. 310.

longiceps, Griffithides, Portlock, 1843, *Report on the geology of the county of Londonderry, and of parts of Tyrone and Fermanagh*, p. 310.

The following is the reference for the designation of *Griffithides longiceps* Portlock, 1843 as the type species of the nominal genus *Griffithides* Portlock, 1843:

Vogdes, A.W. 1890. *Bulletin of the United States Geological Survey*, **63**: 116.

OPINION 1653

Mirochernes Beier, 1930 (Arachnida, Pseudoscorpionida): *Chelanops dentatus* Banks, 1895 confirmed as the type species

Ruling

(1) It is hereby confirmed that the nominal species *Chelanops dentatus* Banks, 1895 is the type species of the genus *Mirochernes* Beier, 1930.

(2) The name *Mirochernes* Beier, 1930 (gender: masculine), type species by original designation as confirmed in (1) above *Chelanops dentatus* Banks, 1895, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *dentatus* Banks, 1895, as published in the binomen *Chelanops dentatus* (specific name of the type species of *Mirochernes* Beier, 1930), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2692

An application for the confirmation of *Chelanops dentatus* Banks, 1895 as the type species of *Mirochernes* Beier, 1930 was received from Dr M.S. Harvey (*Western Australian Museum, Perth, Australia*) on 14 November 1988. After correspondence the case was published in BZN **47**: 22–23 (March 1990). Notice of the case was sent to appropriate journals. No comments were received.

An alternative approach in this case would have been to ask the Commission to use its plenary powers to suppress all uses of the name *Mirochernes* prior to that by Beier, 1932 (cf. para. 2 of the application). Dr Harvey did not favour this course.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 22–23. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Mroczkowski, Nielsen, Nye, Ride, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 3: Minelli, Savage and Schuster.

Voting against, Minelli and Schuster commented that they would have preferred to suppress the uses of *Mirochernes* prior to Beier (1932).

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

dentatus, *Chelanops*, Banks, 1895, *Journal of the New York Entomological Society*, **3**: 6.

Mirochernes Beier, 1930, *Annalen des Naturhistorischen Museums in Wien*, **44**: 216.

OPINION 1654

Fonscolombia Lichtenstein, 1877 (Insecta, Homoptera): *Fonscolombia graminis* Lichtenstein, 1877 fixed as the type species

Ruling

(1) Under the plenary powers:

(a) it is hereby ruled that the name *graminis* Lichtenstein, 1877, as published in the binomen *Fonscolombia graminis*, is to be treated as the specific name of a then new nominal species, now defined by the lectotype designated by Ben-Dov & Matile-Ferrero (1989);

(b) the following names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(i) the generic name *Tychea* Koch, 1857;

(ii) the specific name *graminis* Koch, 1857, as published in the binomen *Tychea graminis*.

(2) The name *Fonscolombia* Lichtenstein, 1877 (gender: feminine), type species by monotypy *Fonscolombia graminis* Lichtenstein, 1877, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *graminis* Lichtenstein, 1877, as published in the binomen *Fonscolombia graminis* and as defined by the lectotype designated by Ben-Dov & Matile-Ferrero (1989) (specific name of the type species of *Fonscolombia* Lichtenstein, 1877), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Tychea* Koch, 1857, as suppressed in (1)(b)(i) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(5) The name *graminis* Koch, 1857, as published in the binomen *Tychea graminis* and as suppressed in (1)(b)(ii) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2695

An application for the designation of *Fonscolombia graminis* Lichtenstein, 1877 as the type species of *Fonscolombia* Lichtenstein, 1877 was received from Drs Y. Ben-Dov (*Agricultural Research Organization, Bet Dagan, Israel*) & D. Matile-Ferrero (*Muséum National d'Histoire Naturelle, Paris, France*) on 5 December 1988. After correspondence the case was published in BZN **46**: 119–122 (June 1989). Notice of the case was sent to appropriate journals.

A comment in support from Dr E.M. Danzig (*Zoological Institute, Leningrad, U.S.S.R.*) was published in BZN **47**: 127–128 (June 1990), together with a comment and revised proposal from Dr P.K. Tubbs (Executive Secretary of the Commission).

Dr Danzig noted that the names *Fonscolombia* and *F. graminis* Lichtenstein, 1877 first appeared (before 11 July) in the *Entomologist's Monthly Magazine* (**14**: 35; reference 'Lichtenstein, 1877b' in the application) and, in addition to the proposals on BZN **46**: 120–121, she proposed the suppression of the unused senior [once supposed] synonym *Tychea graminis* Koch, 1857, to remove any possible confusion with *F. graminis* Lichtenstein. Dr Danzig pointed out that in August 1877 Lichtenstein stated (in a reference not cited in the application) that his *graminis* was not the same taxon as *radicumgraminis* Fonscolombe, 1834.

A further comment in support from Dr D.J. Williams (*The Natural History Museum, London, U.K.*) noted: 'I have studied the case in great detail and wish to add my support to the authors' application. The case has been thoroughly investigated and the proposals offer the best solution. I feel sure most coccidologists will also agree'.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals on BZN **46**: 120–121 with the additions and amendment on BZN **47**: 128. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 28: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Heppell suggested that adoption of the revised proposal on BZN **47**: 128 that *graminis* Lichtenstein, 1877 is to be treated as the name of a then new nominal taxon left *Coccus radicumgraminis* Fonscolombe, 1834 as a second nominal species originally included (although by misidentification) in *Fonscolombia*, which was therefore not monotypic. However, at no time did Lichtenstein include more than one species, which he called *graminis*, in his new genus.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

Fonscolombia Lichtenstein, 1877, *Entomologist's Monthly Magazine*, **14**:35.
graminis, *Fonscolombia*, Lichtenstein, 1877, *Entomologist's Monthly Magazine*, **14**:35.
graminis, *Fonscolombia*, Koch, 1857, *Die Pflanzenläuse, Aphiden* (1854–1857), p. 298.
Tychea Koch, 1857, *Die Pflanzenläuse, Aphiden* (1854–1857), p. 296.

The following is the reference for the designation of the lectotype of *Fonscolombia graminis* Lichtenstein, 1877:

Ben-Dov, Y. & Matile-Ferrero, D. 1989. *Systematic Entomology*, **14**(2): 168.

OPINION 1655

Curculio viridicollis Fabricius, 1792 (currently *Phyllobius viridicollis*; Insecta, Coleoptera): specific name conserved, and *Rhyncolus* Germar, 1817: *Curculio ater* Linnaeus, 1758 designated as the type species

Ruling

(1) Under the plenary powers:

(a) the specific name *cloropus* Linnaeus, 1758, as published in the binomen *Curculio cloropus*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(b) all previous designations of type species for the nominal genus *Rhyncolus* Germar, 1817 are hereby set aside and *Curculio ater* Linnaeus, 1758 is designated as the type species.

(2) The name *Rhyncolus* Germar, 1817 (gender: masculine), type species by designation under the plenary powers in (1)(b) above *Curculio ater* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *ater* Linnaeus, 1758, as published in the binomen *Curculio ater* (specific name of the type species of *Rhyncolus* Germar, 1817);

(b) *viridicollis* Fabricius, 1792, as published in the binomen *Curculio viridicollis*.

(4) The name *cloropus* Linnaeus, 1758, as published in the binomen *Curculio cloropus* and as suppressed in (1)(a) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2678

An application for the conservation of the specific name of *Curculio viridicollis* Fabricius, 1792 and the designation of *Curculio ater* Linnaeus, 1758 as the type species of *Rhyncolus* Germar, 1817 was received from Mr R.T. Thompson (*The Natural History Museum, London*) on 12 August 1988. After correspondence the case was published in BZN **46**: 241–243 (December 1989). Notice of the case was sent to appropriate journals.

An opposing comment from Dr M.A. Alonso-Zarazaga (*Museo Nacional de Ciencias Naturales, Madrid, Spain*), together with a note by the Commission Secretariat, was published in BZN **47**: 213–214 (September 1990). The Secretariat's note reported a comment in support from Dr J. Péricart (*Montereau, France*), an author of the curculionid section of the *Faune de France* (1989).

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **46**: 242. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 22: Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Uéno, Willink

Negative votes — 5: Bayer, Martins de Souza, Starobogatov, Thompson and Trjapitzin.

Dupuis abstained: 'Je m'abstiens et déplore que l'avis de Péricart (BZN **47**: 214) au lieu d'être publié comme un 'comment' de cet auteur soit résumé par le Secrétariat'. [Editorial note: Dr Péricart's letter was as reported, but concluded 'I do not think it necessary to include any comment by myself in the BZN...'; it was for this reason that his letter was abstracted].

Thompson commented that citing a 1938 work [cf. BZN **46**: 241, para. 2] as the main source of references for usage of *viridicollis* Fabricius, 1792 'clearly demonstrates the little use of the name' in the last 50 years, and the requirements of Article 79c(2) had in his view not been met.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

ater, *Curculio*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 385.
cloropus, *Curculio*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 385.
Rhyncolus Germar, 1817, *Magazin der Entomologie*, vol. 2, p. 340.
viridicollis, *Curculio*, Fabricius, 1792, *Entomologia Systematica emendata et aucta*, vol. 1, p. 469.

OPINION 1656

Longitarsus symphyti Heikertinger, 1912 (Insecta, Coleoptera): specific name conserved

Ruling

(1) Under the plenary powers the name *luctator* Weise, 1893, as published in the combination *Longitarsus aeruginosus* var. *luctator*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *symphyti* Heikertinger, 1912, as published in the binomen *Longitarsus symphyti*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *luctator* Weise, 1893, as published in the combination *Longitarsus aeruginosus* var. *luctator* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2687

An application for the conservation of the specific name of *Longitarsus symphyti* Heikertinger, 1912 was received from Dr L. Borowiec (*Agricultural University, Wroclaw, Poland*) on 3 October 1988. After correspondence the case was published in BZN **47**: 117 (June 1990). Notice of the case was sent to appropriate journals. No comments were received. The voting paper noted that the Commission Secretariat held a list of representative works dating from 1932 to 1978 which used the name *L. symphyti*.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 117. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Uéno, Willink

Negative votes — 2: Macpherson and Thompson.

No vote was received from Trjapitzin.

Heppell commented: ‘I vote for the application, but I am concerned that it was necessary to bring this case to the Commission for a vote. I have not seen the original work by Weise in which the ‘var. *luctator*’ is described, and the applicant does not indicate the nature of its original description. The name has never been adopted for a species or subspecies, so its status as an available name depends on whether or not infrasubspecific rank can be inferred from Weise’s text. What concerns me is that, as Article 45g of the Code is presently worded, varietal names published before 1961 are treated as subspecific unless they were clearly infrasubspecific. I believe stability would be better served by shifting the burden of proof to those authors who wish to use currently unused varietal names at subspecific or specific level. The nominal ‘variety’ could then be interpreted as of subspecific rank only if the name was published before 1961 and treated prior to 1985 as an available name, unless it clearly applied to a distinct population and not merely to abnormal individuals. In that way the thousands of such names in the literature would pose no threat to stability and the Commission need be involved only if there were an objection to such a treatment. I would happily support the exclusion of all varietal names not adopted before 1985. This sort of case must be dealt with automatically by the Code, so if Article 45g(ii) is unsatisfactory it requires to be revised. If we have to suppress senior varietal names one by one our work will never be through'.

Thompson commented: 'This application does not conform to the requirements of Article 79c of the Code as there is insufficient documentation of usage'.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

luctator, *Longitarsus aeruginosus*, Weise, 1893, *Naturgeschichte der Insekten Deutschlands*, vol. 6, part 1, p. 1010.

symphyti, *Longitarsus*, Heikertinger, 1912, *Entomologische Blätter*, **8**(3): 69.

OPINION 1657

Colias alfacariensis Ribbe, 1905, *Colias australis* Verity, 1911 and *Colias calida* Verity, 1916 (Insecta, Lepidoptera): availability of specific names confirmed

Ruling

(1) Under the plenary powers it is hereby ruled that the following specific names are deemed to be available:

- (a) *alfacariensis* Ribbe, 1905, as published in the combination *Colias hyale* ab. *alfacariensis*;
- (b) *australis* Verity, 1911, as published in the combination *Colias hyale hyale australis*;
- (c) *calida* Verity, 1916, as published in the combination *Colias hyale calida*.

(2) The name *alfacariensis* Ribbe, 1905, as published in the combination *Colias hyale* ab. *alfacariensis*, is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2617

An application to confirm the availability of the specific name *alfacariensis* Ribbe, 1905 was received from Drs S.E. Whitebread (*Maispracherstrasse 51, Magden, Switzerland*), L. Rezbanyai-Reser (*Naturmuseum Luzern, Luzern, Switzerland*) & H. Geiger (*Zoologisches Institut, Bern, Switzerland*) on 8 July 1987. After correspondence the case was published in BZN **45**: 29–32 (March 1988). Notice of the case was sent to appropriate journals.

Comments in support from Drs E.J. Reissinger (*Kaufbeuren, Germany*) & S. Wagener (*Bocholt, Germany*) and Mr W.G. Tremewan (*The Natural History Museum, London, U.K.*), together with an opposing comment from Prof L.B. Holthuis (*Nationaal Natuurhistorisch Museum, Leiden, The Netherlands*), were published in BZN **47**: 129–131 (June 1990). A comment from Dr O. Kudrna (*Bad Neustadt-Salz, Germany*), published in BZN **47**: 130, supported the use of the name *alfacariensis*, but ascribed authorship to Berger (1948).

The issues in this case were summarised by Dr P.K. Tubbs (Executive Secretary of the Commission) in BZN **47**: 131–132. Before the unambiguous recognition in 1944–45 of this butterfly as an independent species the names *alfacariensis*, *australis* and *calida* had been applied in 1905, 1911 and 1916 respectively. As mentioned in the application and published comments, the first uses of each of these names do not strictly meet the provisions of the present Code, but each is available from various subsequent publications.

It was noted on the voting papers (cf. BZN **45**: 30; **47**: 131) that Berger (1944, 1945) had used *alfacariensis* Ribbe, 1905 in the first descriptions of the taxon as being a species distinct from *Colias hyale*. Both *alfacariensis* and *australis* Verity, 1911 have been in current use; *calida* Verity, 1916 had not been used in recent years (see BZN **47**: 129, para. 5) but could be applied to Italian populations if desired on taxonomic grounds. It was suggested that the various proposals which had been published could be consolidated by ruling that *alfacariensis* Ribbe, 1905, *australis* Verity, 1911 and *calida* Verity, 1916 were all available names. Adoption of this pragmatic course appeared the only way of achieving a consensus view and so ending 40 years of instability. Since they are junior subjective synonyms it was proposed that *australis* Verity, 1911 and *calida* Verity, 1916 should not be placed on the Official List of Specific Names.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the revised proposals outlined above. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 26: Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell (in part), Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Bayer and Holthuis.

Heppell commented: 'I vote for the original proposals only, and against ruling *australis* Verity, 1911 and *calida* Verity, 1916 to be available. No explanation is provided with the voting paper as to whether the published proposals were superseded with the approval of the applicants. If the names *australis* and *calida* are deemed to be available, they should be placed on the Official List (Article 77c (ii) of the Code), and the argument that these names are junior subjective synonyms is irrelevant. This case again indicates the inadequacy of Article 45g. The criterion for judging the rank of a taxon below species level should be not the category term used by the original author but whether the named taxon represents a population and not merely variant individuals. A name applied to a population would then only be infrasubspecific if it was published as an addition to a trinomen'. [Note by the Executive Secretary: normally all names that have been the subject of Commission rulings are placed on the relevant Official Lists, although the valid (senior) subjective synonyms of the specific names of type species, rather than those names themselves, are listed. In the present case *australis* and *calida* are junior subjective synonyms of *alfacariensis*, and it was to avoid confusion that it was proposed, and accepted by the Commission majority, that these names should not be placed on the Official List of Specific Names].

Original references

The following is the original reference to the name placed on an Official List by the ruling given in the present Opinion:

alfacariensis, *Colias hyale*, Ribbe, 1905, *Societas Entomologica*, **XX** Jahrgang (18): 137.

OPINION 1658

Callionymus pusillus Delaroche, 1809 (Osteichthyes, Perciformes): specific name conserved

Ruling

(1) Under the plenary powers the specific name *dracunculus* Linnaeus, 1758, as published in the binomen *Callionymus dracunculus*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *pusillus* Delaroche, 1809, as published in the binomen *Callionymus pusillus*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *dracunculus* Linnaeus, 1758, as published in the binomen *Callionymus dracunculus* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2688

An application for the conservation of the specific name of *Callionymus pusillus* Delaroche, 1809 was received from Dr R. Fricke (*Staatliches Museum für Naturkunde, Stuttgart, Germany*) on 18 October 1988. After correspondence the case was published in BZN **46**: 255–258 (December 1989). Notice of the case was sent to appropriate journals.

A comment by Mr A. Wheeler (*Epping Forest Conservation Centre, Loughton, Essex, U.K.*), supporting conservation of the name *Callionymus pusillus* Delaroche, 1809 but not accepting its synonymy with *C. dracunculus* Linnaeus, 1758, was published in BZN **47**: 48–50 (March 1990). A reply by the author of the application was published at the same time.

It was noted on the voting paper that, as mentioned in the application (para. 2), some workers consider *Callionymus dracunculus* and *C. lyra* Linnaeus, 1758 to be synonyms. The specific name in use (and that of the type species of *Callionymus*) is *lyra*, following the first reviser action of Neill (1811; see BZN **47**: 49); the status of this name is not disturbed by the suppression of *dracunculus*.

Decision of the Commission

On 1 December 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 256 (December 1989). At the close of the voting period on 1 March 1991 the votes were as follows:

Affirmative votes — 20: Bock, Cocks, Cogger, Corliss, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Mahnert, Martins de Souza, Mroczkowski, Nielsen, Nye, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 8: Bayer, Dupuis, Hahn, Holthuis, Macpherson, Minelli, Ride and Savage.

Bayer commented: 'In view of the subjective nature of the evidence presented, I could support this application only if it were for relative precedence, not for total suppression of *Callionymus dracunculus* Linnaeus, 1758. Dr Fricke's rebuttal notwithstanding, *dracunculus* is potentially a composite species as Linnaeus did, in fact, cite two sources for it'. Dupuis said that the matter was taxonomic rather than nomenclatural.

Hahn commented: 'There is apparently no agreement between specialists, whether *dracunculus* is synonymous with *lyra* or with *pusillus*. Therefore, it would be better to give *pusillus* precedence over *dracunculus* than to suppress the older name'. Minelli commented: 'I would like to support Wheeler's comments, i.e. I agree with the conservation of *pusillus* Delaroche, 1809, but not with the suppression of the specific name *dracunculus*'. Holthuis and Ride commented that it would be possible (if necessary) to designate a specimen of *lyra* as type of the nominal species *dracunculus*, and the suppression of the latter name would not then be needed.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

dracunculus, Callionymus, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 249.

pusillus, Callionymus, Delaroche, 1809, *Annales du Muséum d'Histoire Naturelle Paris*, **13**(77): 315.

OPINION 1659

Trionyx sinensis Wiegmann, 1834 (Reptilia, Testudines): specific name conserved

Ruling

(1) Under the plenary powers the specific name *rostrata* Thunberg, 1787, as published in the binomen *Testudo rostrata*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *rostrata* Thunberg, 1787, as published in the binomen *Testudo rostrata* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

(3) The entry on the Official List of Specific Names in Zoology for the name *sinensis* Wiegmann, as published in the binomen *Trionyx sinensis*, is hereby amended to record the date as 1834 and not 1835.

History of Case 2693

An application for the conservation of the specific name of *Trionyx sinensis* Wiegmann, 1834 was received from Dr R.G. Webb (*University of Texas at El Paso, El Paso, Texas, U.S.A.*) on 18 November 1988. After correspondence the case was published in BZN **47**: 122–123 (June 1990). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 122–123. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 23: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Holthuis, Kabata, Kraus, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Uéno, Willink

Negative votes — 4: Dupuis, Heppell, Lehtinen and Macpherson.

No vote was received from Trjapitzin.

Heppell commented: 'The turtle is not claimed to be of any economic importance, nor is it argued that any undue inconvenience would be caused by the acceptance of the name *Testudo rostrata* Thunberg, 1787, of which the holotype has recently been described and figured. That action would also make the correct date of *T. sinensis* Wiegmann of academic importance only. The reasons for citing the date as 1834 are not given, and seem not to be published'. [The Commission Secretariat has a draft manuscript sent by Dr R.I. Crombie (cf. BZN **47**: 122, para. 3) on the dates of Wiegmann's publications].

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

rostrata, *Testudo*, Thunberg, 1787, *Museum Naturalium Academiae Upsaliensis*, part 2, p. 21.

sinensis, *Trionyx*, Wiegmann, 1834, *Nova Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae*, **17**: 189.

OPINION 1660

Steno attenuatus Gray, 1846 (currently *Stenella attenuata*; Mammalia, Cetacea): specific name conserved

Ruling

(1) Under the plenary powers the following specific names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(a) *velox* Cuvier, 1829, as published in the binomen *Delphinus velox*;
(b) *pseudodelphis* Schlegel, 1841, as published in the binomen *Delphinus pseudodelphis*;
(c) *brevimanus* Wagner, 1846, as published in the binomen *Delphinus brevimanus*.

(2) The name *Stenella* Gray, 1866 (gender: feminine), type species by monotypy *Steno attenuatus* Gray, 1846, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *attenuatus* Gray, 1846, as published in the binomen *Steno attenuatus* (specific name of the type species of *Stenella* Gray, 1866), is hereby placed on the Official List of Specific Names in Zoology.

(4) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology:

(a) *velox* Cuvier, 1829, as published in the binomen *Delphinus velox* and as suppressed in (1)(a) above;
(b) *pseudodelphis* Schlegel, 1841, as published in the binomen *Delphinus pseudodelphis* and as suppressed in (1)(b) above;
(c) *brevimanus* Wagner, 1846, as published in the binomen *Delphinus brevimanus* and as suppressed in (1)(c) above.

History of Case 2717

An application for the conservation of the specific name of *Stenella attenuata* (Gray, 1846) was received from Dr W.F. Perrin (*Southwest Fisheries Center, La Jolla, California, U.S.A.*) on 20 March 1989. After correspondence the case was published in BZN **47**: 32–37 (March 1990). Notice of the case was sent to appropriate journals. The application was supported by Mr M. C. Sheldrick (*The Natural History Museum, London, U.K.*); this was cited on the voting paper.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 34–35. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Holthuis.

Dupuis abstained.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

attenuatus, *Steno*, Gray, 1846, *The Zoology of the Voyage of H.M.S. 'Erebus' and 'Terror' during the years 1839 to 1843*, vol. 1 (Mammalia, Birds), p. 44.

brevimanus, *Delphinus*, Wagner, 1846, *Die Säugethiere in Abbildungen nach der Natur mit Beschreibungen von D. Johann Christian Daniel von Schreber*, vol. 7 (Ruderfüsser und Fischzitzthiere), pl. 361, fig. 2.

pseudodelphis, *Delphinus*, Schlegel, 1841, *Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie*, vol. 1 (Beiträge zur Characteristik der Cetaceen), p. 22.

Stenella Gray, 1866, *Proceedings of the Zoological Society of London*, **1866**: 213.

velox, *Delphinus*, Cuvier, 1829, *Le règne animal distribué d'après son organisation, pour servir de base à l'histoire naturelle des animaux et d'introduction à d'anatomie comparée*, Ed. 2, vol. 1, p. 288.

OPINION 1661

Mammuthus Brookes, 1828 (Mammalia, Proboscidea): conserved, and *Elephas primigenius* Blumenbach, 1799 designated as the type species

Ruling

(1) Under the plenary powers all previous fixations of type species for the nominal genus *Mammuthus* Brookes, 1828 are hereby set aside and *Elephas primigenius* Blumenbach, 1799 is designated as the type species.

(2) The name *Mammuthus* Brookes, 1828 (gender: masculine), type species by designation in (1) above *Elephas primigenius* Blumenbach, 1799, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *primigenius* Blumenbach, 1799, as published in the binomen *Elephas primigenius* and as defined by the neotype designated by Garutt, Gentry & Lister (1990) (specific name of the type species of *Mammuthus* Brookes, 1828), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2726

An application for the conservation of the generic name *Mammuthus* Brookes, 1828 and the designation of *Elephas primigenius* Blumenbach, 1799 as the type species was received from Dr W.E. Garutt (*Zoological Institute, Leningrad, U.S.S.R*), Mrs Anthea Gentry (*Secretariat, International Commission on Zoological Nomenclature, The Natural History Museum, London, U.K.*) & Dr A.M. Lister (*University of Cambridge, Cambridge, U.K.*) on 5 June 1989. After correspondence the case was published in BZN **47**: 38–44 (March 1990). Notice of the case was sent to appropriate journals.

Comments in support from Dr H.D. Kahlke (*Institut für Quartärpaläontologie, Weimar, Germany*), Dr A.V. Sher (*Severtsov Institute of Evolutionary Animal Morphology and Ecology, Moscow, U.S.S.R.*), Dr Alan Gentry (*The Natural History Museum, London, U.K.*) and Mr A.P. Currant (*The Natural History Museum, London, U.K.*) were published in BZN **47**: 51–52 (March 1990).

The generic name *Archidiskodon* Pohlig, 1888 (type species *Elephas meridionalis* Nesti, 1825), previously a junior objective synonym of *Mammuthus* Brookes, 1828, is conserved as a consequence of approval by the Commission of the application. *Archidiskodon* is available for use by those who consider it to represent a genus or subgenus taxonomically distinct from *Mammuthus*.

Decision of the Commission

On 6 March 1991 the members of the Commission were invited to vote on the proposals published in BZN **47**: 41. At the close of the voting period on 6 June 1991 the votes were as follows:

Affirmative votes — 28: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Mammuthus Brookes, 1828, *A catalogue of the anatomical & zoological museum of Joshua Brookes, Esq., F.R.S., F.L.S. etc. Part 1*, p. 73.
primigenius, *Elephas*, Blumenbach, 1799, *Handbuch der Naturgeschichte*, Ed. 6, p. 697.

The following is the reference for the designation of the neotype of *Mammuthus primigenius* Blumenbach, 1799:

Garutt, W.E., Gentry, Anthea & Lister, A.M. 1990. *Bulletin of Zoological Nomenclature*, **47**: 41.

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Prof J. M. Savage (*U.S.A.; Herpetology*)
Prof Dr R. Schuster (*Austria; Acari*)
Dr Y. I. Starobogatov (*U.S.S.R.; Mollusca*)
Dr P. Štys (*Czechoslovakia; Heteroptera*)
Dr F. C. Thompson (*U.S.A.; Diptera*)
Dr V. A. Trjapitzin (*U.S.S.R.; Hymenoptera*)
Dr Shun-Ichi Uéno (*Japan; Entomology*)
Prof A. Willink (*Argentina; Hymenoptera*)

Secretariat

Dr P. K. Tubbs (*Executive Secretary and Editor*)
Mr J. D. D. Smith, B.Sc., B.A. (*Scientific Administrator*)
Mrs A. Gentry, B.Sc. (*Zoologist*)
Miss D. Allan, B.Sc. (*Zoologist*)

Officers of the International Trust for Zoological Nomenclature

Dr S. Conway Morris, F.R.S. (*Chairman*)
Dr M. K. Howarth (*Secretary and Managing Director*)

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 48, part 4 (pp. 281–351) 19 December 1991

Notices

(a) *Invitation to comment.* The Commission is authorised to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after their publication, but this period is normally extended to enable comments to be submitted. Any zoologist who wishes to comment on any of the applications is invited to send his contribution to the Executive Secretary of the Commission as quickly as possible.

(b) *Invitation to contribute general articles.* At present the *Bulletin* comprises mainly applications concerning names of particular animals or groups of animals, resulting comments and the Commission's eventual rulings (Opinions). Proposed amendments to the Code are also published for discussion.

Articles or notes of a more general nature are actively welcomed provided that they raise nomenclatural issues, although they may well deal with taxonomic matters for illustrative purposes. It should be the aim of such contributions to interest an audience wider than some small group of specialists.

(c) *Receipt of new applications.* The following new applications have been received since going to press for volume 48, part 3 (published on 30 September 1991). Under Article 80 of the Code, existing usage is to be maintained until the ruling of the Commission is published.

(1) *Filimanus* Myers, 1936 (Osteichthyes, Perciformes): proposed designation of *F. perplexa* Feltes, 1991 as the type species. (Case 2601). R.M. Feltes.
(2) *Monograptus crenulatus* (currently *Monoclimacis crenulata*; Graptolithina): proposed attribution of the specific name to Elles & Wood, 1911, and proposed designation of a lectotype. (Case 2826). D.K. Loydell, E.E. Bull & P. Štorch.
(3) *Podisus* Herrich-Schaeffer, 1851 (Insecta, Heteroptera): proposed conservation of *P. vittipennis* Herrich-Schaeffer, 1851 as the type species. (Case 2828). D.B. Thomas & W.R. Dolling.
(4) *Notonecta obliqua* Thunberg, 1787 (Insecta, Heteroptera): proposed conservation of the specific name. (Case 2829). A. Jansson & J.T. Polhemus.
(5) *Corisa nigrolineata* Fieber, 1848 (currently *Sigara* (*Pseudovermicorixa*) *nigrolineata*; Insecta, Heteroptera): proposed conservation of the specific name. (Case 2830). A. Jansson & J.T. Polhemus.
(6) *Corisa sexlineata* Reuter, 1882 (currently *Sigara* (*Tropocorixa*) *sexlineata*; Insecta, Heteroptera): proposed conservation of the specific name. (Case 2831). A. Jansson.
(7) *Rhinoptera* Kuhl in Cuvier, 1829 (Chondrichthyes, Myliobatiformes): proposed conservation. (Case 2832). G. Dingerkus & B. Séret.

(d) *Ruling of the Commission.* Each Opinion, Declaration or Direction published in the *Bulletin* constitutes an official ruling of the International Commission on Zoological Nomenclature, by virtue of the votes recorded, and comes into force on the day of publication of the *Bulletin.*

Election of members of the International Commission on Zoological Nomenclature

At the 24th General Assembly of the International Union of Biological Sciences, held in Amsterdam in September 1991, the Section on Zoological Nomenclature re-elected the following retiring members of the Commission: Dr H.G. COGGER (Australia; herpetology), Prof Dr O. KRAUS (Germany; arachnology) and Dr W.D.L. RIDE (Australia; mammalogy). Two new members were elected:

Dr PHILIPPE BOUCHET (*Muséum national d'Histoire naturelle, 55 rue de Buffon, 75005 Paris, France*). Dr Bouchet's research is on marine gastropods, especially those of the deep sea, and the larval ecology of marine invertebrates. He is also actively concerned with the conservation of endangered species.

Dr PAVEL ŠTYS (*Katedra zoologie, University Karlovy, Viničná 7, 128 44 Praha 2, Czechoslovakia*). Dr Štys's research is on the comparative morphology and phylogeny of Heteroptera. In 1988 he published (with Dr V. Houša) the Czech translation of the 3rd Edition of the International Code of Zoological Nomenclature.

The International Code of Zoological Nomenclature

The Third Edition (published 1985) supersedes all earlier versions and incorporates many changes.

Copies may be ordered from The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £19 or $35 (postage included) or from the American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington, D.C. 20560, U.S.A. Price $35 ($32 to members of A.A.Z.N.). Payment should accompany orders.

Official Lists and Indexes of Names and Works in Zoology — Second Supplement to 1990

The Official Lists and Indexes of Names and Works in Zoology was published in 1987. This book gives details of all the names and works on which the Commission has ruled since it was set up in 1895 up to 1985. There are about 9,900 entries.

In the five years 1986–90, 946 names and five works have been added to the Official Lists and Official Indexes. A supplement has been prepared giving these additional entries, together with some amendments and updatings to entries in the 1987 volume. This supplement was circulated to all subscribers to the *Bulletin of Zoological Nomenclature* with Vol. 48, Part 1 of the *Bulletin.* Copies can be obtained without charge from either of the following addresses, from which the *Official Lists and Indexes* can also be ordered at the price shown (postage included). Payment should accompany orders.

The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £60 or $110
or
The American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington D.C. 20560, U.S.A. Price $110 ($100 to members of A.A.Z.N.).

Bulletin of Zoological Nomenclature — Crustacea and Mollusca Offprints

The International Trust for Zoological Nomenclature is offering a subscription for individual zoologists wishing to receive offprints of all cases in particular disciplines. For an annual payment of £15 or $25 subscribers will receive copies of all Applications, Comments and Opinions relating to either the Crustacea or Mollusca as soon as they are published in the *Bulletin of Zoological Nomenclature*. Offprints are available back to 1980.

Orders for offprints relating to either the Crustacea or the Mollusca should be sent to I.T.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K., with payment at the rate of £15 or $25 for each year requested.

International Trust for Zoological Nomenclature

Financial Report for 1990

The Trust made an operating loss of £1,324 during the year 1990, which is 2% of the total income of £65,872 received during that year. The loss can be more than accounted for by the expenditure of £3,697 on purchasing the remaining stock of the *International Code of Zoological Nomenclature* from the Trust's former agents in the U.S.A. It is expected that sale of these copies of the *Code* direct by the American Association for Zoological Nomenclature will yield several times the repurchase price in the long term. Without that purchase the Trust would have been in profit by £2,373 for the year. Nevertheless, the fine balance between income and expenditure demonstrates the extent to which the Trust relies on the continuation of its generous grants and donations.

Nearly half the Trust's income came from sales of publications. Foremost amongst these were sales of the *Bulletin of Zoological Nomenclature*, which yielded a gross income of £23,897. Sales of the *Official Lists and Indexes* amounted to £2,114 in 1990, bringing the total sales of the *Official Lists and Indexes* since publication in June 1987 to £26,145; the profit on that publication is now £10,198, after the printing costs have been deducted. Sales of the *International Code of Zoological Nomenclature* increased slightly to £2,708 in 1990.

The remainder of the Trust's income was from grants, donations and interest. The amount received in grants and donations was £25,862, although not all was attributable to the year 1990. The Trust wishes to express its thanks to all the donors listed at the end of this report who supported its work during the year. Especially noteworthy was the extra $5,000 given by the American Association for Zoological Nomenclature, who increased their donation to $15,000 (= £8,458) for the year. Income from deeds of covenant amounted to £254, and bank and investment interest came to £12,226. Finally, royalties from sales of the *Code* translated into other languages yielded £81.

The expenses of the Trust in 1990 amounted to £67,196. The largest amount was for the salaries and National Insurance (£50,387) and the office expenses (£3,720) of the Secretariat of the International Commission on Zoological Nomenclature. Printing and distribution of the *Bulletin* amounted to £8,416. This was 6% less than in 1989, despite increased rates charged by the printing trade, and was due to the Secretariat preparing copy for the printers on computer disk. The remaining expenses were £376 for depreciation of office equipment and £600 for the audit fee. The Commission's Secretariat was again housed in The Natural History Museum, whom we thank for their continuing support.

M.K. HOWARTH
Secretary and Managing Director
10 June 1991

List of donations and grants received during the year

Academia Sinica, Taiwan £120
Agricultural and Food Research Council, U.K. £2,000
American Association for Zoological Nomenclature £8,458
W. Ansell £4

Australian Academy of Science £204
Australian Museums (donation for 1989) £769
R.E. Blackith £50
British Ecological Society £500
Freshwater Biological Association, U.K. £5
German Entomological Society £167
German Zoological Society £169
R.C. Kershaw £100
Medical Research Council, U.K. £2,000
R.V. Melville £25
Natural Environment Research Council, U.K. £2,000
Royal Danish Academy of Sciences and Letters £86
Royal Entomological Society of London £300
Royal Society of London £1,000
Science and Engineering Research Council, U.K. £2,000
South African Foundation for Research Development £500
Spanish Council for Scientific Research £1,500
Swiss National Science Foundation £2,000
U.S.S.R. Academy of Sciences £445
Zoological Societies of Japan £1,460

Total £25,862

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 1990

Income		
SALE OF PUBLICATIONS		
Bulletin of Zoological Nomenclature	23,897	
International Code of Zoological Nomenclature	2,708	
Official Lists and Indexes	2,114	
		28,719
GRANTS, DONATIONS AND COVENANTS (attributed to 1990)	24,846	
ROYALTIES	81	
BANK AND INVESTMENT INTEREST	12,226	
		37,153
		65,872
Expenditure		
SALARIES AND NATIONAL INSURANCE	50,387	
OFFICE EXPENSES	3,720	
AUDIT FEE	600	
PURCHASE, PRINTING AND DISTRIBUTION OF PUBLICATIONS	12,113	
DEPRECIATION OF OFFICE EQUIPMENT	376	
		67,196
Deficit for the year		£1,324

International Commission on Zoological Nomenclature

General Session of the Commission, Amsterdam, 2–6 September 1991

Present: Prof Dr O. Kraus (President) in the Chair, Commissioners Bock, Cogger, Corliss, Dupuis, Heppell, Holthuis, Lehtinen, Minelli, Nielsen, Nye, Ride, Savage and Thompson. Dr Tubbs (Executive Secretary), Miss Allan, Mrs Gentry and Mr Smith from the Secretariat also present. The President welcomed Commissioners, particularly Dr Nielsen and Dr Nye attending their first meeting since election to the Commission. He regretted that many Commissioners had been unable to attend.

1. Apologies for absence had been received from Commissioners Bayer, Cocks, Hahn, Kabata, Macpherson, Mahnert, Martins de Souza, Mroczkowski and Schuster.

2. The Minutes of the previous General Session of the Commission and of the Open Meeting of the Commission (University of Maryland, July 1990) as published in BZN **47**: 246–253 were accepted (Prof Dupuis abstaining) and signed.

3. *Report to IUBS, 1988–1991*
Commissioners accepted the Executive Secretary's report to IUBS for the years 1988–1991 as submitted, subject to the addition of Dr Nye's name as a Commissioner elected in 1989.

4. *Election of Commissioners*
(i) *Procedure for Elections.* Five vacancies in Commission membership had been announced, arising from the completion of tenure of Commissioners Cogger, Kraus, Mroczkowski and Ride and the resignation of Dr G.C. Gruchy. Twenty-eight nominations had been received including the four retiring members who had been ruled by the Council as eligible for re-election. In accordance with Article 4d of the Constitution the Commission selected ten of the nominees to present to the IUBS Section of Zoological Nomenclature. Five of the ten nominees were recommended by the Commission for election (in accordance with Bylaw 3 (BZN **46**: 7–8)) to secure the best balance of nationality and zoological field in Commission membership, as laid down in Article 2 of the Constitution. Commissioners agreed that in future it would be helpful if nominees provided brief statements on their nomenclatural experience. Under Article 3c of the Statutes of the Section of Zoological Nomenclature (BZN **42**: 321–323), it was agreed to admit to the Section at the XXIV General Assembly of IUBS all zoologists registered for the IUBS Symposium on Biodiversity or for associated workshops and all zoologists at the General Assembly who were not already members of the Section under Statutes 3a and 3b. As such they were, with the exception of any person whose name appeared on the ballot paper, eligible to vote in the election.

(ii) *Election by the Section of Zoological Nomenclature.* Voting by secret ballot was undertaken by the Section of Zoological Nomenclature. In accordance with Bylaw 3d, Prof Corliss (Councillor) conducted the election. The ballot was open from the afternoon of 3 September to the afternoon of 5 September. The following five zoologists were elected to the Commission:

Dr P. Bouchet	France	Mollusca
Dr H.G. Cogger	Australia	Herpetology
Prof Dr O. Kraus	Germany	Arachnology
Dr W.D.L. Ride	Australia	Mammalia
Dr P. Štys	Czechoslovakia	Heteroptera

5. *Bulletin of Zoological Nomenclature*

Dr Tubbs reported that over the last few years there had been little change in the number of subscribers for the *Bulletin*. As an experiment, a greatly reduced subscription had been introduced for individuals wishing to receive offprints of all Applications, Comments and Opinions in particular fields (Crustacea and Mollusca), but there had not been many takers.

6. *Official Lists and Indexes of Names and Works in Zoology*

In the four years since publication about 520 copies of the *Official Lists and Indexes* had been sold. It had been updated in March 1991 with a supplement giving all the names placed on the Lists and Indexes in the five years since compilation of the volume. It had been suggested at the Commission's meeting in Maryland that the *Official Lists and Indexes* should be made available on disk. This was technically feasible, but would be expensive in terms of both money and effort. The views of a number of systematists and users of taxonomy had been sought and their general reaction was that availability on disk would be of little value; Commissioners concurred with this view.

Prof Bock questioned the value of placing on the Official Lists names other than those that had been conserved by the Commission, and this led to a discussion on the status of names placed on the Official Lists and Indexes. A committee was set up (The President, Dr Bock and the Executive Secretary) to make recommendations to the Editorial Committee on the Code.

7. *International Code of Zoological Nomenclature (Third Edition)*

The Third Edition of the Code had been published in 1985 and more than 6000 copies had been sold. It was now being sold by the Trust and the American Association for Zoological Nomenclature at the rate of about 170 copies a year and was producing a useful income. A reprint would not be necessary for some years, even if it was not replaced by a Fourth Edition.

8. *Financial Position*

Dr Tubbs reported that a number of economies had been made to reduce the anticipated deficit in the funding of the Commission's activities. These included staff reductions by taking in-house the financial book-keeping and the liaison with the *Bulletin* printers, both previously carried out by paid part-time staff, and also savings in costs by sending *Bulletin* copy to the printers on disk rather than in typescript. Despite such savings the anticipated deficit for 1991 was over £5,000. Shortfalls in funding were a severe constraint on the effectiveness of the Commission and would limit the extent to which it could move into new fields such as the Lists of Names unless support could be substantially increased. He reported that the IUBS Executive Committee had agreed that IUBS could receive funds earmarked for the Trust from countries which were unable to contribute research council or other government support directly to an organisation based abroad.

Dr Tubbs noted that grants and donations amounted to about £24,800 in 1990, but that this support and sales of publications (£28,700) together amounted to only 80% of expenditure. The President expressed gratitude to those who supported the Commission's work, but stressed the urgency of obtaining funds from more countries, and from organizations that made use of the Commission's services.

9. *European Association for Zoological Nomenclature*

Dr Tubbs reported that formal steps had now been completed for the foundation of a European Association for Zoological Nomenclature similar to the American Association. Such a transnational association would serve both to heighten the awareness of nomenclature and to increase financial support. The Association would be legally registered in Spain.

Commissioners endorsed the intention of Dr Macpherson and Dr M.A. Alonso-Zarazaga (Madrid) to set up a provisional Executive Committee with representatives from a number of European countries. It would be necessary to develop the most economic method of collecting and transmitting subscriptions in a number of different currencies with a minimum of bank charges. Suggestions included the holding of 'Treasurer's Accounts' for receipt of foreign currency, and the appointment of correspondents in each country who would consolidate subscriptions within that country and transmit funds direct to the Trust's account in London.

10. *Procedure for the Election of the Officers and Councillors*

Dr Cogger had been elected Vice-President in January 1990 for the remainder of the previous Vice-President's term of office which was due to end on 1 December 1991. It was agreed that under Bylaw 12b Drs Bock and Holthuis would join with the Council to nominate two candidates for the Vice-Presidency.

Profs Corliss and Savage would retire from the Council in March 1993. The Commission set a date of 4 January 1993 for the election of two Councillors to fill the vacancies.

At a meeting on 6 September the Council, in accordance with the Bylaws, re-appointed the Secretary-General (Dr Nye) and the Executive Secretary (Dr Tubbs) to serve until the close of the next IUBS General Assembly.

11. *Relationship between the Commission and the International Trust for Zoological Nomenclature*

The attention of Commissioners was drawn to a statement by the Trust, agreed at its annual meeting in June 1991, setting out how it saw its relationship with the Commission. The statement noted that the role of the Trust was to act as an enabling body working on behalf of the Commission to publish the works of the Commission, to raise funds and to appoint staff who would act as servants of the Commission.

It was explained that the Commission, not being a corporate body registered in any country, could not itself hold funds or pay bills and that it was necessary to have a separate body in the country where the Commission's Secretariat operated. The President, who had been a member of the Trust for a number of years, assured Commissioners that the relationship between the two bodies worked well and harmoniously. It was noted that the 24 members of the Trust included four Commissioners and that nine members were from outside the U.K.

12. *Commission Procedures*

Dr Tubbs introduced a paper he had written explaining the role of the Commission, the procedures whereby it carried out its tasks, and particularly how applications submitted for action by the Commission were dealt with. It was intended to publish this paper, with appropriate modifications, in the *Bulletin* and perhaps elsewhere. It was important that this paper emphasized the Commission's stabilizing influence on nomenclature. Commissioners were invited to propose additional points to be incorporated.

A table was presented showing the present disposition of applications received in the last 15 years. Of the 478 applications received between 1975 and 1988 and not later withdrawn or closed, 452 had been published and Opinions had been published for 423 of these. A small number of applications received before 1975 had been neither published nor closed. Dr Tubbs explained that there was a variety of reasons why in a small minority of cases publication had not been achieved or Opinions given, but that progress was being made with some of the uncompleted cases. In some cases the authors failed to provide additional information requested, while the ramifications of other applications were so wide-ranging that large areas of nomenclature could be destabilized. Such factors and limited Secretariat resources had caused difficulties since the Commission's earliest days.

In the course of discussion a number of points were emphasized and suggestions made for improving procedures. The President stressed the need for more detailed instructions to authors submitting applications, particularly a proposal that they should discuss cases with other zoologists or with nomenclature committees before submitting applications to the Commission. He also suggested that applications not submitted in the *Bulletin* format should be returned for resubmission. Dr Bock suggested that members of the Commission and specialist nomenclature committees could assist in checking applications, particularly references. It was agreed that Commissioners should be supplied with a list of cases for which no Opinion had been prepared, to see if assistance could be given.

13. *Bylaws of the Commission*

The Bylaws of the Commission had been adopted in 1976 at the Bangalore meeting of the Commission and modified at the Budapest (1985) and Canberra (1988) meetings. It was agreed that a revision of the Bylaws was needed and a committee consisting of Mr Heppell, Drs Nye and Thompson and the Executive Secretary was set up to undertake this and report to the Commission. The Committee would consider a proposed Bylaw that had been tabled; this provided for the institution of new categories of non-voting Special Commissioners and Emeritus Commissioners. It was important that the Bylaws should be made widely known and this could best be achieved by publication of them in the *Bulletin*, with a reference to this in the next edition of the Code.

14. *Specialist Nomenclature Committees*

A number of specialist nomenclature committees now existed and were available to assist the Commission by advising on applications submitted to the Commission, particularly the impact of such applications on taxonomy. Dr Bock had prepared a paper for distribution to Commissioners setting out draft terms of reference for nomenclature committees based on his experience of the Standing Committee on

Ornithological Nomenclature (SCON) of the International Ornithological Congress. He intended to publish a note in *Systematic Biology* on specialist nomenclature committees. Comments by the SCON and by the Nomenclature Committee of The Crustacean Society had been published in recent parts of the *Bulletin*.

Commissioners felt that specialist nomenclature committees could play a more significant role than at present, but recognized that in many fields there were as yet no means for establishing effective and representative committees.

15. *Lists of Names*

The Lists Committee (Chairman: Dr Ride, with Drs Cogger, Thompson and Tubbs, and Dr Holthuis also present) had met at Leiden on 30 and 31 August 1991. Dr Tubbs reported that he had had several meetings with Biosis U.K. In collaboration with the Zoological Society of London, Biosis had made good progress in the preparation of a draft list of generic names published between 1758 and 1990, based on Neave's *Nomenclator Zoologicus* and *Zoological Record*. In collaboration with the Commission's Secretariat sample lists had been prepared and sent to a number of specialist workers for their help and advice. If it were decided to proceed the contributions of other zoologists were important and would be sought. The Committee agreed that a List of Generic Names would be a most valuable tool for zoologists and others. It could be made available on CD-ROM and, divided into taxonomic sections, in hard copy.

The Committee considered whether the Commission should adopt enabling provisions in the next edition of the Code so that it could, at the request of zoologists in particular taxonomic fields, receive and accept 'Lists of potentially valid names' in those fields, to the exclusion of names not on such Lists. Potentially valid names are those which are not unavailable, objectively invalid or suppressed. After acceptance of such a List, following comments by the zoological community, names applying to taxa in the fields and ranks covered which had been published before the effective date of the List would be excluded from availability unless they were on the List. It was emphasized that the acceptance of such Lists should be on the initiative of zoologists rather than of the Commission, and that the fullest consultations were essential. It was recognised that in some fields such Lists would never exist. The Committee considered that such Lists would be very valuable, and it recommended that the Commission direct the Editorial Committee to draft amendments to the Code to enable their adoption.

The Commission accepted the report and recommendations of the Lists Committee.

16. *Names of Higher Taxa*

Mr Heppell tabled a report with a list of higher taxa (those above the family-group) excluding protista and fossil taxa. This was based on *Synopsis and Classification of Living Organisms* (McGraw-Hill, 1982). The list had been prepared in conjunction with Prof Savage in response to requests to the Commission to prepare lists of suprafamilial names. Mr Heppell stressed that, since such names were outside the Commission's remit, it was important that any such list should be regarded as being of Recommended Names, not having the authority of any Commission ruling. Commissioners recognized that the completion of such lists would be very time-consuming and that it was really the role of *Zoological Record*. It was decided not to proceed with formal lists but instead to offer help to *Zoological Record* and to advise specialists on request or when a significant problem was perceived (Mr Heppell and Dr Nielsen to co-ordinate).

17. *International Code of Zoological Nomenclature (Fourth Edition)*

Dr Ride presented a report of the Editorial Committee for the Fourth Edition of the Code (Chairman: Dr Ride, with the President, Dr Cogger, Prof Dupuis, Drs Thompson and Tubbs). The Committee (with apologies for absence from the President and Prof Dupuis, and with Dr Holthuis and Mr R.V. Melville present) had met at Leiden on 30 and 31 August 1991. The Committee had considered proposals to amend the Third Edition of the Code which had been discussed at meetings at Canberra in 1988 and at the University of Maryland in 1990 or which had been raised in correspondence with the Commission and between Commissioners since the Third Edition had been published in February 1985. All proposals to amend the Code contained in the files of the Secretariat, including issues brought up in the handling of applications published in the *Bulletin*, had been reviewed by the Committee. Broad issues discussed were the general form of the Code, criteria for Availability and Publication, and the language of the Code. Specific issues included the types of species-group taxa, the description of family-group taxa as a condition of availability of their names, the status of original and subsequent spellings, the agreement in gender of names in combination, the orthography of patronymic specific names, spellings selected by the first reviser, names based upon misidentified types, and the simplification of type terminology including a review of the term 'hapantotype'. A number of changes to individual Articles of the Code had been given preliminary consideration, including the bringing together of different components of the Code relating to the conservation of junior synonyms.

At Dr Ride's request, the Commission considered each item in the Editorial Committee's report and authorised the Committee to proceed along agreed lines in preparing a draft of the Fourth Edition. It was hoped that a first draft could be considered by the Editorial Committee in early 1992. A discussion draft would be made available for wide distribution in mid-1992 and would be announced in the *Bulletin* and elsewhere. Under Article 16 of the Constitution comments made within 12 months would be fully considered by the Editorial Committee, which would report to the Commission. The Commission would need to meet for intensive consideration of the revised draft, perhaps holding a colloquium to ensure a wide input of views. The XXV General Assembly of IUBS at its meeting in Paris in September 1994 could be asked to adopt formally the Fourth Edition for publication in 1995.

Dr Thompson circulated details of a questionnaire he had circulated at the ICSEB meeting at Maryland in July 1990 soliciting views on a number of questions on biological nomenclature in the 21st century. This was accepted as an interesting response and a useful input to the Editorial Committee.

18. *Proposed Suppression for Nomenclatural Purposes of three Herpetological Works*

An application from the President of the Australian Society of Herpetologists for the suppression for nomenclatural purposes of three herpetological works had been published in the *Bulletin* in June 1987; a number of comments had been received and published. The Commission discussed a number of options for responding to the application and agreed on a course of action (see BZN **48**: 337–338).

19. *Forthcoming Centenary of the Commission*

The President reminded Commissioners that the centenary of the Commission's establishment would occur in 1995. Mr R.V. Melville, former member and Secretary of the Commission, was preparing a history of the Commission for publication in 1995. It was also intended that the Fourth Edition of the Code would be published that year. Commissioners agreed that the centenary would provide an excellent opportunity to highlight the importance of nomenclature and the contribution to nomenclatural stability made by the Commission. It was suggested that a Symposium might be held on the History and Future Development of Nomenclature.

20. *Conclusion*

In closing the meeting, the President thanked all present for the efforts they had made in attending the meeting which had made significant progress. He thanked particularly Dr Ride for assuming the Chairmanship of the Editorial Committee for the Fourth Edition of the Code and members of that committee for their important contribution.

I.U.B.S. Section of Zoological Nomenclature

Report of Meeting, Amsterdam, 6 September 1991

Present: Prof Dr O. Kraus (Chairman), Miss D. Allan, Prof W.J. Bock, Dr Q. Bone, Prof D.L. Bruton, Dr H.G. Cogger, Prof J.O. Corliss, Prof C. Dupuis, Dr L.B. Holthuis, Prof N.G. Krushchov, Dr P.T. Lehtinen, Prof A. Minelli, Dr C. Nielsen, Dr I.W.B. Nye, Dr A.C. Pierrot-Bults, Dr W.D.L. Ride, Prof J.M. Savage, Prof U. Simidu, Mr J.D.D. Smith, Dr F.C. Thompson, Dr P.K. Tubbs, Prof. S.G. Vassetzky.

1. The Chairman opened the meeting by welcoming all present. He explained that the Section of Zoological Nomenclature was convened by IUBS and consisted of members of the Commission, any zoologists being members of national or other delegations, Sections or Commissions of IUBS, and any other zoologists registered for the IUBS General Assembly, for the Biodiversity Symposium or for associated workshops.

2. *Minutes of Previous Meeting of the Section*

The Minutes of the previous meeting of the Section, held at Canberra from 14 to 18 October 1988, had been published in the *Bulletin of Zoological Nomenclature* (BZN **46**: 14–18) and were circulated. They were accepted and signed.

3. *Election of Members to the Commission*

All members of the Section had a vote in the ballot for new members of the Commission. Five vacancies had been announced, arising from the completion of tenure of Dr Cogger, Prof Kraus, Dr Mroczkowski and Dr Ride and the resignation of Dr G.C. Gruchy. Twenty-eight zoologists had been nominated for membership of the Commission, including the four retiring members whom the Council of the Commission had ruled eligible for re-election. In accordance with Article 4d of its Constitution, the Commission had selected ten of the nominees to present to the Section as candidates. Five of the ten nominees were recommended by the Commission for election to secure the best balance of nationality and zoological field in Commission membership. The ballot was open from the afternoon of 3 September to the afternoon of 5 September. Forty-eight members of the Section voted. Professor Corliss (Councillor) conducted the election. The following five zoologists were elected to the Commission:

Dr P. Bouchet	France	Mollusca
Dr H.G. Cogger	Australia	Herpetology
Prof Dr O. Kraus	Germany	Arachnology
Dr W.D.L. Ride	Australia	Mammalia
Dr P. Štys	Czechoslovakia	Heteroptera

4. *Present Work of the Commission*

The Chairman reported on the present work of the Commission, referring particularly to the preparation of Lists of Names, Specialist Nomenclature Committees, the current financial position, the European Association for Zoological Nomenclature and the work of the Editorial Committee set up to prepare a draft of the Fourth Edition of the International Code of Zoological Nomenclature. Details of these and other items are contained in the Report of the Commission's meeting held between 2 and 6 September 1991.

Dr Pierrot-Bults described the work of the Expert-center for Taxonomic Identifications (ETI) that had recently been set up at the Institute of Taxonomic Zoology of the University of Amsterdam, funded by the Dutch Government, the University of Amsterdam and UNESCO. She explained that ETI was in the process of setting up a database of taxonomic information to enable answers to be given to taxonomic, biogeographic and ecological questions. The Section recognised the extreme importance to ETI of accurate zoological nomenclature and stressed the need for close collaboration between the Commission and ETI, particularly in connection with the proposed Lists of Names.

5. There being no other business the Chairman thanked members of the Section for their assistance to the Commission and closed the meeting.

The International Commission on Zoological Nomenclature: what it is and how it operates

P.K. Tubbs

Executive Secretary, The International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

The Commission is a body of zoologists set up in Leiden in 1895 by the 3rd International Congress of Zoology to provide and maintain a uniform system of zoological nomenclature. This paper is an informal account of the functioning of the Commission at the present time.

The Commission's primary activity is the publication of the *International Code of Zoological Nomenclature*, the rules which are universally accepted as governing the application of scientific names to all organisms in the animal kingdom. The *Code* must provide stability and yet adapt to the changes required by advances in biological knowledge and also by what may be described as cultural evolution, such as the shift in emphasis towards usage at the expense of overriding adherence to classical grammar or to the priority of the oldest (even if forgotten) name for a taxon. These changes require the production of successive editions of the *Code*, although in the interests of stability it is important that the intervals between them should not be too short. The current edition was published in February 1985, and supersedes earlier ones. No amendments have been adopted since that time. About 6000 copies have been distributed; sales are now handled by the Commission Secretariat in London and the American Association for Zoological Nomenclature in Washington.

Suggested amendments to the *Code* are received by the Secretariat, which, following correspondence with the originators, brings them to the attention of the Commission. There is an editorial committee responsible for drafting the next edition of the *Code*. Proposed amendments are published in *The Bulletin of Zoological Nomenclature*, the Commission's quarterly periodical, and comments are invited. Publicity is also given in other journals. At least a year must elapse from the publication of amendments before they can be voted upon by the Commission, but in practice this period is longer: it is of the greatest importance that all zoologists (in the widest sense) and not just the Commission members can participate in changing the *Code*. Amendments take formal effect when they have been approved by the Commission and ratified at a General Assembly of the International Union of Biological Sciences. The Commission has operated under the auspices of this Union since 1972, when the final International Congress of Zoology was held in Monaco.

In addition to producing successive editions of the *Code*, the Commission may use the plenary power, which it has had since the 1913 Congress, to waive or modify the application of *Code* provisions in instances when strict adherence would cause confusion and thereby defeat the purpose of scientific nomenclature. In other cases a decision by the Commission may promote stability without setting aside *Code* provisions. The Commission takes these actions in response to applications submitted to it via the Secretariat.

About 50 applications are received each year. On arrival each is given an initial assessment. This may show that no formal Commission action is necessary and that the applicants can be satisfied by correspondence; the Secretariat is very willing to give advice. If it appears that further action is needed the applicant is notified of this and the title by which the case is described, and may be asked for supplementary information. He is also advised that shortage of resources makes a delay inevitable, but that while the case is under consideration existing nomenclatural usage should be maintained (Article 80 of the *Code*), even if it would otherwise be contrary to the rules. The titles and authors of recently received applications are published in the *Bulletin* so that other workers in that field can be aware of the application.

'Instructions to Authors' are published in each Part of the *Bulletin*, and it is important that these are followed; if a draft is very different from *Bulletin* format it may have to be returned to the authors before work on it can begin. It is always desirable for an applicant to discuss his case with other workers in his field before submitting an application; this helps to ensure that he is aware of the wider implications and the likely reactions of others.

Cases are dealt with in approximate order of receipt. Treatment may be accelerated if particularly important species are concerned, if an urgent threat to stability exists or if, for example, a forthcoming major treatise is involved. Conversely, long and intricate cases may be delayed, especially if they are not well prepared. The aim is to publish cases within about a year of receipt, but shortage of resources often makes this impossible.

Within the Secretariat one person is primarily responsible for working on each application. This involves ensuring that when published it will be comprehensible to readers of the *Bulletin* who are not specialists in the taxonomic group(s) concerned, and that the stated facts are both accurate and an adequate basis for a Commission ruling. Other members of the Secretariat, including the Executive Secretary, read the application both in typescript and at the proof stages, and there is close consultation within the office. Applications are not normal papers, which if 'bad' merely lower an author's scientific reputation, but serve to draw to the attention of the zoological community and of the Commission instances where an official ruling (an 'Opinion') by the Commission is needed to resolve nomenclatural difficulties. In a sense applicants are really applying on behalf of the zoological community as a whole, and it follows that the Secretariat has a duty to make sure, as far as reasonably possible, that all the relevant facts are made available; it would not be adequate to confine attention to matters of editorial style. Equally, there is an obligation not to be officious and certainly not to 'censor' or delay cases because the Secretariat members may personally disagree with them. The Secretariat, housed in the Natural History Museum in London, is fortunate in having excellent access to the literature of the last 250 years, and applicants often express appreciation of the attention which is given to their cases. Authors are sent typescript copy before the case is passed to the *Bulletin* printers, and this is almost invariably preceded by correspondence (which may be extensive). Experience has shown that multiple authors do not always maintain contact with each other, and that it is important to ensure that misunderstandings do not arise from this.

Cases vary greatly in length: only one name or up to several dozen may be dealt with in the eventual Opinion. The working time needed to bring an application to the printing stage varies from a couple of days to, in extreme cases, several weeks; a few days is typical. This time is naturally spread over a period, and covers reading the application and key references (often with extensive note-taking), drafting and correspondence. At any one time each member of the Secretariat is dealing with several applications. When final copy is agreed with the authors the case is sent on disk to the printers; preparation of disks for automated printing gives improved proof quality and saves costs.

The progress of most applications from receipt to publication is relatively straightforward. In a small minority of cases considerable delays occur, and indeed this has incurred criticism since the Commission's earliest days. The causes of such delays vary. Sometimes applicants submit a case and then fail to answer further correspondence. Cases may at first appear to be limited in scope, but on further investigation prove to have wide implications which require much correspondence. In some instances cases are so long or intricate, or are part of such an extensive linked series, that the necessary work can only be completed over a substantial period, having regard to the Secretariat's commitments and limited resources. Specialist advisers and nomenclature committees give very valuable help with some applications, but such consultations have on occasion themselves been a cause of delay.

After publication of an application in the *Bulletin* the Abstract is sent to relevant journals, with a request for publicity. Publication is an invitation for comments from interested zoologists. Comments are edited and published in the *Bulletin*; copies are sent to the applicants, who may wish to make a response. In some cases explanatory notes by the Secretariat may also be published.

If no obstacle arises an application is normally voted upon by the Commission about one year after its publication, but this period will be increased if there are significant opposing comments. Preparation by the Secretariat of voting papers (which are sent out in batches of 15–20 three times a year) takes considerable time. Each case is reviewed and explanatory notes arising from consideration of the application and comments are often added for the assistance of Commissioners. Late comments are noted on the voting papers, and also in the subsequent Opinion. Votes are returned within three months; a two-thirds majority is required in cases which involve use of the Commission's plenary power to set aside *Code* provisions, while in other cases a simple majority is sufficient.

At the conclusion of the voting period an Opinion is prepared which incorporates the Commission's ruling. Members of the Commission may accompany their votes with comments, and these are reported in the Opinion. These comments may sometimes include matters which have to be referred to the applicants for clarification before the Opinion is published. On occasion, but fortunately not often, a member of the Commission may with his vote raise an issue of such substance that no Opinion can be issued until the comment is published and a re-vote taken; this naturally causes severe delay. A re-vote is also necessary if a majority is less than the two-thirds needed to set aside a *Code* provision, but again this is rare.

Publication of an Opinion in the *Bulletin* determines the status of the names and/or zoological works concerned. Although the Commission naturally has no ability to impose 'penalties' for non-observance of its rulings, these are by consensus almost always universally accepted. Names which are adopted or conserved in Opinions are placed on the *Official Lists of Names*; there are three of these, respectively for family-group, generic and specific names, and there is another for works. There are corresponding *Official Indexes* for names and works which have been rejected or suppressed in Opinions. A rejected name is one which under the provisions of the *Code* cannot be valid for any taxon, while a suppressed name would (or could) be valid had it not been set aside by the Commission so ruling in the interests of stability. Conservation is the opposite of suppression: a conserved name is one whose continued usage would be illegitimate had not the Commission set aside the *Code* provisions which disqualified the name. Published works may also be conserved or suppressed. The suppression of a work does not denote censorship, but simply means that nomenclatural stability is best served by a ruling that in that work names should not be regarded as having been established or types as having been fixed; a suppressed work may of course be cited for bibliographic or taxonomic purposes.

The consolidated *Official Lists and Indexes of Names and Works in Zoology* was published as a single volume in 1987, which may be obtained from the Commission Secretariat. A free supplement covering Opinions in 1986–1990 is also available; each year's *Bulletin* covers the Opinions of that year.

It is an important function of the Commission's Secretariat and of individual Commissioners to give advice on any question with nomenclatural implications; neither the Commission nor the Secretariat are able to deal with purely taxonomic matters. Many nomenclatural enquiries are received, and are dealt with by letter or by telephone. The questions raised may concern a particular name or work or may relate to the interpretation of the *Code*; answering them may be straightforward or may involve considerable literature searching.

In addition to directly nomenclatural and editorial tasks the Secretariat deals with all aspects of the administration and financing of the Commission's activities.

The Commission has at present 29 members from 19 countries. Commissioners are zoologists or palaeontologists with nomenclatural experience who give of their time without payment; they are expected to participate in all the Commission's decisions and, as far as they can, to attend its meetings. The Commission meets triennially in conjunction with General Assemblies of the International Union of Biological Sciences, and has also met at the International Congress of Systematic and Evolutionary Biology. Nominations for election to the Commission may be sent to the Secretariat. Elections take place at Assemblies where the Commission meets, with voting both by members of the Commission and by other zoologists who are attending; casual vacancies may be filled by postal by-elections.

It is widely agreed that, in carrying out the functions outlined above, the Commission provides a valuable support service for zoology and indeed for biological science in general, including medicine and agriculture. Unfortunately, ever since its foundation nearly a century ago the resources available have severely constrained the ability of the Commission to respond rapidly to the commitments placed upon it by zoologists from around the world. For the first 50 years it had no income or tangible resources. In 1947, following the move of the Secretariat to London some years before, a non-profit making company, the International Trust for Zoological Nomenclature, was established in the U.K. to administer the financial affairs of the Commission; it receives and makes payments, holds copyrights and so on. Its only function is to act on behalf of the Commission, which is not itself incorporated in any country. There are four members of the Commission Secretariat: they are employed (only two on a full-time basis) by the Trust to serve the Commission. Income remains the limiting factor in the Commission's activities, and much Secretariat time has to be spent on financial matters. Sales of publications (the *International Code of Zoological Nomenclature*, the *Bulletin of Zoological Nomenclature*, and the *Official Lists and Indexes of Names and Works in Zoology*) amounted to about £28,700 in 1990, covering considerably less than half the total costs (£67,200). In that year grants and donations amounted to about £25,000. This essential and much appreciated support came from Academies, Research Councils, learned societies and individuals in 14 countries. Outside the U.K., the largest single donor was the American Association for Zoological Nomenclature, and a similar European Association is now being formed. These figures show that further assistance to the Commission from those who use scientific names is vital.

While some may feel that the Commission is not adequately representative, that it is too conservative (or radical), or may be inclined to dissent from its decisions or the *Code*, all agree that uniformity of nomenclatural practice is important. The Commission exists to promote this, and welcomes suggestions to improve both its procedures and the *Code*.

There is understandable ignorance among zoologists about how their universal system of nomenclature is maintained and evolves, and about how the International Commission operates and its need for support. It is hoped that this paper may be of some help in increasing understanding.

Case 2731

Planoplatyscelis Kaszab, 1940 (Insecta, Coleoptera): proposed designation of *Platyscelis margelanica* Kraatz, 1882 as the type species

L.V. Egorov

Zoological Institute, U.S.S.R Academy of Sciences, St Petersburg 199034, U.S.S.R.

Abstract. The purpose of this application is to designate *Platyscelis margelanica* Kraatz, 1882 as the type species of *Planoplatyscelis* Kaszab, 1940 (a subgenus of *Bioramix* Bates, 1879) in accordance with accepted understanding and usage. At present this tenebrionid subgenus has a misidentified type species.

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1. Kaszab (1940, p. 206) established the subgenus *Planoplatyscelis* within *Platynoscelis* Kraatz, 1882 (p. 91), designating *Platyscelis regeli* Ballion, 1878 (p. 326) as the type species and including 12 other nominal species. The generic name *Platynoscelis* was later (Kryzhanovskij, 1965, p. 194; Egorov, 1989, p. 390) replaced by its senior subjective synonym *Bioramix* Bates, 1879.

2. Skopin (1973, p. 870) examined the lectotype (designated by him) of *Platyscelis regeli* and concluded that it actually represented a species of the genus *Oodescelis* Motschulsky, 1845 (p. 76), of which Kaszab (1940, p. 937) had designated *Blaps polita* Sturm, 1807 as the type species.

3. From Kaszab's (1940) work it is clear that he misidentified *Platyscelis regeli* Ballion, 1878 and that the species he cited under this name was, in fact, *Platyscelis margelanica* Kraatz, 1882 (p. 84) (the latter was listed by Kaszab as a synonym of *Platynoscelis regeli* (Ballion, 1878)). The species *margelanica* was for a long time named '*regeli*' as a result of the misidentification of *regeli* by Kaszab. The subgeneric name *Planoplatyscelis*, however, has always been used in the sense typified by *margelanica*, following the original description and subsequent usage (see Kaszab, 1960, p. 92; 1970, p. 128 and Skopin, 1965, p. 53; 1968, p. 81). If *regeli* is recognised as the type species this will result in *Planoplatyscelis* Kaszab, 1940 becoming a junior subjective synonym of *Oodescelis* Motschulsky, 1845 and a new name will be required for the subgenus of *Bioramix* currently known as *Planoplatyscelis*, resulting in considerable confusion in tenebrionid nomenclature.

4. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type species for the nominal subgenus *Planoplatyscelis* Kaszab, 1940 and to designate *Platyscelis margelanica* Kraatz, 1882 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Planoplatyscelis* Kaszab, 1940 (gender: feminine), type species by designation in (1) above *Platyscelis margelanica* Kraatz, 1882;

(3) to place on the Official List of Specific Names in Zoology the name *margelanica* Kraatz, 1882, as published in the binomen *Platyscelis margelanica* (specific name of the type species of *Planoplatyscelis*).

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Case 2780

Platyscelis Latreille, 1818 (Insecta, Coleoptera): proposed designation of *Tenebrio hypolithus* Pallas, 1781 as the type species, so conserving *Oodescelis* Motschulsky, 1845

L.V. Egorov

Zoological Institute, U.S.S.R. Academy of Sciences, St Petersburg 199034, U.S.S.R.

Abstract. The purpose of this application is to designate *Tenebrio hypolithus* Pallas, 1781 as the type species of the tenebrionid beetle genus *Platyscelis* Latreille, 1818, which includes a number of agricultural pest species, in accordance with universal understanding and usage. The nominal genus *Oodescelis* Motschulsky, 1845, which also includes a number of pest species, will also be conserved.

1. Latreille (1818, p. 23) established *Platyscelis* with *Blaps polita* Sturm, 1807 (p. 208, pl. 45, fig. C, c–d) as the single included species. Dejean (1821, p. 65) listed *Platyscelis* with two included species, *Tenebrio hypolithus* Pallas, 1781 (p. 44, pl. C, fig. 10) and '*Platyscelis melas* Illiger?' (a nomen nudum). Fischer von Waldheim (1823, pl. 20) figured *Platyscelis hypolithus* (Pallas) and three new species (*gages* (a junior subjective synonym of *Blaps polita* Sturm, 1807), *melas* and *rugifrons*); all four species were described under *Platyscelis* in the subsequently published text of the work (Fischer von Waldheim, 1824, pp. 194–195). Latreille (1825, p. 375) gave a short description of the genus under the vernacular name 'Platyscèle' but did not mention any of the included species. Lepeletier & Serville (1825, p. 157) published a description of *Platyscelis* and included two species in the genus, *hypolithus* Pallas and *polita* Sturm. In the following year Sturm (1826, p. 185) listed *Platyscelis* with five included species, only two of which, *hypolithus* Pallas and *rugifrons* Fischer von Waldheim, 1823, had available names. In a German translation of Latreille's 1825 work (Latreille, 1827, p. 367), Berthold altered the vernacular 'Platyscèle' to *Platyscelis*. Guérin (1828, p. 41) designated *Tenebrio hypolithus* Pallas, 1781 (misspelled as '*hippolythes*') as the type species of *Platyscelis*. This same type species was later accepted by Hope (1840, p. 124) and by Gebien (1938, p. 66).

2. None of the coleopterists working in the second half of the 19th century or since has accredited the authorship of *Platyscelis* to Latreille (1818), nor to any of the other entomologists who used the name between 1818 and 1827. All have ascribed the authorship to Latreille (1825), despite the vernacular form then used (see, for example, Lacordaire, 1859, p. 229).

3. *Oodescelis* Motschulsky, 1845 (p. 76) was proposed without included species. In 1860 (p. 527), Motschulsky referred five species to the genus. Kaszab (1940, p. 937) designated one of these, *Blaps polita* Sturm, 1807, as the type species of *Oodescelis*. (The spelling of the author's name 'Motschulsky' has been adopted, which accords with that

used in most bibliographies and nomenclators and in nearly all current entomological works, and has been accepted previously in the (1987) *Official Lists and Indexes of Names and Works in Zoology*; see, for example, p. 46 (*Anodius*) and p. 141 (*Paradoxides*)).

4. Recognition that the generic name *Platyscelis* was established by Latreille in 1818 leads to the acceptance of *Blaps polita* Sturm, 1807 as the valid type species by monotypy. In consequence the name *Oodescelis* Motschulsky, 1845 becomes a junior objective synonym of *Platyscelis* Latreille, 1818 and the latter is the valid name for the genus currently named *Oodescelis*. *Pleiopleura* Seidlitz, 1893 (p. 343; type species *Platyscelis striatus* Motschulsky, 1859, p. 307, designated by Kaszab, 1940, p. 913) would become the valid synonym of *Platyscelis* as this name has been understood. *Platyscelis* and *Oodescelis* are used in the sense typified by *Tenebrio hypolithus* Pallas, 1781 and *Blaps polita* Sturm, 1807 respectively. Any change will be confusing and will upset the long-established usage of the names for two well known genera. The genus *Oodescelis* includes 38 nominal species at present, and *Platyscelis* 20 species (Egorov, 1989, 1990). Both genera are Palaearctic in distribution and a number of species in both genera are of economic importance as plant pests. The names have been used in the agricultural, horticultural and pest control literature, as well as a number of taxonomic works, including Byzova & Keleinikova (1964, p. 483) and Medvedev (1965, p. 369; 1974, pp. 127, 129). A list of 10 references for each of the two names is held by the Commission Secretariat. *Platyscelis* is the type genus of the tribe PLATYSCELIDINI Lacordaire, 1859 (p. 229; published as 'Groupe Platyscélides') (see Gebien, 1938, p. 66).

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all designations of type species for the nominal genus *Platyscelis* Latreille, 1818, prior to that by Guérin (1828) of *Tenebrio hypolithus* Pallas, 1781;

(2) to place on the Official List of Generic Names in Zoology the following names:
   (a) *Platyscelis* Latreille, 1818 (gender: feminine), type species by subsequent designation by Guérin (1828) *Tenebrio hypolithus* Pallas, 1781, as ruled in (1) above;
   (b) *Oodescelis* Motschulsky, 1845 (gender: feminine), type species by subsequent designation by Kaszab (1940) *Blaps polita* Sturm, 1807;

(3) to place on the Official List of Specific Names in Zoology the following names:
   (a) *hypolithus* Pallas, 1781, as published in the binomen *Tenebrio hypolithus* (specific name of the type species of *Platyscelis* Latreille, 1818);
   (b) *polita* Sturm, 1807, as published in the binomen *Blaps polita* (specific name of the type species of *Oodescelis* Motschulsky, 1845).

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Case 2773

Schizopus Le Conte, 1858 (Insecta, Coleoptera): proposed conservation

G.H. Nelson

College of Osteopathic Medicine of the Pacific, College Plaza, Pomona,
California 91766-1889, U.S.A.

Abstract. The purpose of this application is the conservation of the name *Schizopus* Le Conte, 1858 for a buprestid beetle genus. It is threatened by the homonym *Schizopus* Claparède & Lachmann, 1858, an unused name for a genus of hypotrichous ciliate protozoan.

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1. The generic name *Schizopus* was proposed by Claparède & Lachmann (1858, p. 182) for a single new species, *S. norvegicus*, of hypotrichous ciliate protozoan. *Schizopus* Le Conte (1858, p. 70) was proposed in the same year for the new buprestid beetle species *S. laetus*. I have been unable to ascertain the exact dates of publication for either of the names *Schizopus*, therefore under Article 21c of the Code the date of publication of both is taken as December 31, 1858. I therefore propose the suppression of the unused homonym *Schizopus* Claparède & Lachmann, 1858.

2. All major 19th century protozoologists (e.g. Stein, 1859; Kent, 1880–82; Bütschli, 1887–89) placed *Schizopus* Claparède & Lachmann into synonymy under one or another earlier name. In his taxonomic/nomenclatural book on ciliates, Corliss (1979) declared *Schizopus* Claparède & Lachmann, and many other generic names of ciliates, to be nomina oblita (although this term had no status under the then current Code).

3. The generic name *Schizopus* Le Conte has been used continually as a valid name since its publication. Le Conte (1859, p. 122) proposed a new family SCHIZOPODIDAE for *S. laetus* Le Conte; however, he (1866, p. 386) reconsidered and placed the species, along with *Dystaxia murrayi* Le Conte, in the tribe SCHIZOPINI (sic) of the family BUPRESTIDAE. This was followed in the landmark work on the classification of the Coleoptera of North America by Le Conte & Horn (1883), and by Kerremans and other specialists of the BUPRESTIDAE, until Fowler (1912, p. 150) treated the tribe as a subfamily. Most recent authors (e.g. Arnett, 1968; Nelson, 1982; Bellamy, 1985 and Cobos, 1986) have considered the subfamily status as valid. The generic name *Schizopus* has not only played a prominent role in the taxonomic literature, but also in discussions of the phylogenetic relationships of the BUPRESTIDAE. Either the genus *Schizopus* or the subfamily SCHIZOPODINAE is usually portrayed as a critical link to other taxa; see Le Conte (1859), Good (1925), Forbes (1926), Rees (1941), Crowson (1960, 1975, 1981), Lawrence & Newton (1982), Lawrence (1982, 1987), Caveney (1986) and Gardner (1989).

4. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Schizopus* Claparède & Lachmann, 1858, and all uses of the name *Schizopus* prior to *Schizopus* Le

Conte, 1858, for the purposes of both the Principle of Priority and the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Schizopus* Le Conte, 1858 (gender: masculine), type species by monotypy *Schizopus laetus* Le Conte, 1858;

(3) to place on the Official List of Specific Names in Zoology the name *laetus* Le Conte, 1858, as published in the binomen *Schizopus laetus* (specific name of the type species of *Schizopus* Le Conte, 1858);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Schizopus* Claparède & Lachmann, 1858, as suppressed in (1) above.

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Case 2749

Eristalis Latreille, 1804, *Helophilus* Fabricius, 1805, *Xylota* Meigen, 1822 and *Eumerus* Meigen, 1822 (Insecta, Diptera): proposed conservation

Tadeusz Zatwarnicki
Department of Zoology, Agricultural University, ul. Cybulskiego 20, 50–205 Wroclaw, Poland

Abstract. The purpose of this application is to conserve the names of four genera of hover-flies (family SYRPHIDAE): *Eristalis* Latreille, 1804, *Helophilus* Fabricius, 1805, *Xylota* Meigen, 1822 and *Eumerus* Meigen, 1822. The first three names are threatened by senior objective synonyms and *Eumerus* by a senior homonym. It is proposed to fix *Musca pendula* Linnaeus, 1758 as the type species of *Helophilus* Fabricius, 1805 in accordance with universal usage. All four genera are found almost world wide.

1. The SYRPHIDAE is one of the largest families of Diptera. A number of the generic names which have been in use for nearly 180 years are synonyms or homonyms of unused earlier names. This problem has been discussed by Wirth, Sedman & Weems (1965, pp. 596, 604, 622), Smith & Vockeroth (1980, p. 508), Peck (1988, p. 75) and Thompson & Vockeroth (1989, p. 458). Collin (see BZN **18**: 37–38) proposed Commission action to maintain existing usage of the four generic names, *Eristalis* Latreille, 1804, *Helophilus* Fabricius, 1805, *Xylota* Meigen, 1822 and *Eumerus* Meigen, 1822, but no formal application was published. Names of tribes are based on each of these names.

2. Meigen (1803, p. 274) established the generic name *Elophilus* for a group of species which included *Musca tenax* and *M. pendula*, both of Linnaeus, 1758 (p. 591). Latreille (1804, p. 194) proposed the name *Eristalis* for a similar group of species, which also included *M. tenax* and *M. pendula*. Latreille (1810, p. 443) designated *M. tenax* as the type species of *Elophilus* and the same species is the type of *Eristalis* by the designation of Curtis (1832, pl. 432, text). *Eristalis* is therefore a junior objective synonym of *Elophilus*. The genus containing *M. tenax*, however, has consistently been known as *Eristalis*, and *Elophilus* has not been used as a valid name during this century. I propose that *Elophilus* should be suppressed.

3. Fabricius (1805, p. 233) widened the concept of Latreille's (1804) genus *Eristalis* to include 69 species. He incorporated six species (including *tenax* and *pendula*) of Meigen's (1803) genus *Elophilus* and in listing each of them he emended the spelling of *Elophilus* to *Helophilus*. The latter spelling has been universally adopted. Although published in synonymy *Helophilus* is an available name (Article 11e of the Code) with

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A related application (Case 2730) for the conservation of *Cheilosia* Meigen, 1822 and *Pyrophaena* Schiner, 1860 was received from Drs A.V. Barkalov (*Academy of Sciences of the U.S.S.R., Novosibirsk*) & I.M. Kerzhner (*Academy of Sciences of the U.S.S.R., St Petersburg*) and has now been published (see BZN **48**: 312–315).

authorship ascribed to Fabricius (Article 50g); Leach ([1817], p. 159) adopted the name *Helophilus*, and recorded it as being Meigen's *Elophilus* with the species '*tenax* Latr.'. The type species of *Helophilus* is *Musca tenax* Linnaeus by the designation of Latreille (1810) (see para. 2). In 1822 Meigen divided the species which he had previously referred to *Elophilus* into two groups, using *Eristalis* for the '*tenax* group' (pp. 381–400; 1838, pl. 32, figs. 14–22) and *Helophilus* for the '*pendula* group' (pp. 368–376; 1838, pl. 32, figs. 1–9). This taxonomic arrangement is followed today. Curtis (1832, pl. 429, text) designated *M. pendula* Linnaeus, 1758 as the type species of *Helophilus* sensu Meigen (1822) and Goffe (1944, p. 116) designated the same species as the type of *Helophilus* Fabricius, 1805. It is proposed to set aside the fixation of *tenax* Linnaeus as the type species of *Helophilus*, and to accept the designation by Curtis (1832) of *M. pendula* as the type, so conserving the current usage of the name. Most authors (Goffe (1944) and Kloet & Hincks (1945, p. 379) are exceptions) have attributed *Helophilus* to Meigen, 1822 but, as explained above, the name is available from Fabricius (1805).

4. In 1803 Meigen (p. 273) proposed the name *Eumeros* for two species, *Musca segnis* and *M. pipiens*, both of Linnaeus, 1758 (pp. 594 and 595 respectively), and *Heliophilus* (p. 273) for the single species *M. sylvarum* Linnaeus, 1758 (p. 592). In 1822 Meigen (p. 211; 1838, pl. 28, figs. 19–29) replaced the name *Heliophilus* with *Xylota*, commenting that *Heliophilus* could not be retained because of a similar plant name; he included both species of *Eumeros* (or *Eumerus* Meigen, 1804; see below) in *Xylota*. Coquillet (1910, p. 541) designated *M. segnis* the type species of *Eumeros*. *Xylota* is a junior subjective synonym of *Eumeros* but neither the latter nor *Heliophilus* have been used. I propose that both *Eumeros* and *Heliophilus* be suppressed to conserve the well used name *Xylota*.

5. In 1804 (p. xx) Meigen listed his (1803) taxon *Eumeros* spelt as *Eumerus*. In 1822 (p. 202; 1838, pl. 28, figs. 14–18) he used the latter name for a different syrphid genus for which it has since consistently been used. Curtis (1839, pl. 749, text) designated *Syrphus tricolor* Fabricius, 1798 (p. 563), one of the 12 included species, as the type of *Eumerus* Meigen, 1822. It is not clear whether Meigen (1804) misspelt his (1803) name *Eumeros* as *Eumerus*, or whether the latter was an emendation. As an unjustified emendation *Eumerus* Meigen, 1804 enters into homonymy (Article 33b(iii)) and I propose that this name be suppressed to conserve the established usage of *Eumerus* Meigen, 1822.

6. The larvae of *Eristalis* and *Helophilus*, known as 'rat-tailed maggots', breed in large numbers in decaying organic matter, dung and putrid or stagnant water. They sometimes occur in drinking water and salads and become accidental human parasites, causing myiasis in the intestine (see Smith, 1973). *Eristalis tenax*, the common drone-fly, is cosmopolitan and there are few species of Diptera better known and with as many references in the literature. It has found ideal breeding grounds among stationary human populations and has spread almost world wide. The larvae of *Eumerus strigatus* (Fallén, 1817), the lesser bulb fly, attack and destroy bulbs of *Narcissus*, *Amaryllis* and other species. The genus is well known in Europe and has been introduced into North America and other parts. Species of *Xylota* are common in the sap and wet, rotting wood of the diseased parts of trees. There is thus a considerable literature on the taxonomy, biology and medical and economic importance of the four genera. The names have appeared in the recent taxonomic works of Telford (1970; *Eristalis*), Violovitsh (1979; *Helophilus*) and Hippa (1978; *Xylota*) and a representative list of a further 70 references demonstrating usage of the four names is held by the Commission

Secretariat. All four names are included in the following checklists: Wirth, Sedman & Weems (1965), Knutson, Thompson & Vockeroth (1975), Smith & Vockeroth (1980), Vockeroth & Thompson (1987), Peck (1988), and Thompson & Vockeroth (1989).

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  (a) to suppress the following generic names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
    (i) *Elophilus* Meigen, 1803;
    (ii) *Eumeros* Meigen, 1803;
    (iii) *Heliophilus* Meigen, 1803;
  (b) to suppress the generic name *Eumerus* Meigen, 1804, and all uses of the name *Eumerus* prior to the publication of *Eumerus* Meigen, 1822, for the purposes of both the Principle of Priority and the Principle of Homonymy;
  (c) to set aside all fixations of type species for the nominal genus *Helophilus* Fabricius, 1805 prior to the designation by Curtis (1832) of *Musca pendula* Linnaeus, 1758;
(2) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Eristalis* Latreille, 1804 (gender: masculine), type species by subsequent designation by Curtis (1832) *Musca tenax* Linnaeus, 1758;
  (b) *Helophilus* Fabricius, 1805 (gender: neuter), type species by subsequent designation by Curtis (1832) *Musca pendula* Linnaeus, 1758, as ruled in (1)(c) above;
  (c) *Xylota* Meigen, 1822 (gender: feminine), type species, by monotypy of the replaced nominal genus *Heliophilus* Meigen, 1803, *Musca sylvarum* Linnaeus, 1758;
  (d) *Eumerus* Meigen, 1822 (gender: masculine), type species by subsequent designation by Curtis (1839) *Syrphus tricolor* Fabricius, 1798;
(3) to place on the Official List of Specific Names in Zoology the following names:
  (a) *tenax* Linnaeus, 1758, as published in the binomen *Musca tenax* (specific name of the type species of *Eristalis* Latreille, 1804);
  (b) *pendula* Linnaeus, 1758, as published in the binomen *Musca pendula* (specific name of the type species of *Helophilus* Meigen, 1822);
  (c) *sylvarum* Linnaeus, 1758, as published in the binomen *Musca sylvarum* (specific name of the type species of *Xylota* Meigen, 1822);
  (d) *tricolor* Fabricius, 1798, as published in the binomem *Syrphus tricolor* (specific name of the type species of *Eumerus* Meigen, 1822);
(4) to place on the Official List of Rejected and Invalid Generic Names in Zoology the following names:
  (a) *Elophilus* Meigen, 1803, as suppressed in (1)(a)(i) above;
  (b) *Eumeros* Meigen, 1803, as suppressed in (1)(a)(ii) above;
  (c) *Heliophilus* Meigen, 1803, as suppressed in (1)(a)(iii) above;
  (d) *Eumerus* Meigen, 1804, as suppressed in (1)(b) above.

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Case 2730

Cheilosia Meigen, 1822 and *Pyrophaena* Schiner, 1860 (Insecta, Diptera): proposed conservation

A.V. Barkalov

Biological Institute, Siberian Branch of the Academy of Sciences of the U.S.S.R., Novosibirsk 630091, U.S.S.R.

I.M. Kerzhner

Zoological Institute, Academy of Sciences of the U.S.S.R., St Petersburg 199034, U.S.S.R.

Abstract. The purpose of this application is to conserve the names of two genera of hover-flies, *Cheilosia* Meigen, 1822 and *Pyrophaena* Schiner, 1860 (family SYRPHIDAE). Both names are threatened by the unused senior name *Cheilosia* Panzer, [1809], as a homonym and as an objective synonym respectively. It is proposed to fix *Syrphus flavipes* Panzer, 1798 as the type species of *Cheilosia* Meigen in accordance with existing usage. *Cheilosia* Meigen includes approximately 350 species in the Palaearctic, Nearctic and Oriental regions. It is the type genus of the tribe CHEILOSIINI Shannon, 1922. Species included in the genus have economic importance as pollinators, pests of weeds, and as causing damage in the timber of some American coniferous trees. *Pyrophaena* Schiner, 1860 includes some 10 species, distributed in the Palaearctic and Nearctic regions.

1. Panzer ([1809], p. 14, pl. [14]; see Saunders (1888) and Sherborn (1923) for the date of publication) published the new generic name *Cheilosia* in combination with *Syrphus rosarum* Fabricius, 1787 (p. 341) and illustrated the species. Citation of the specific name makes *Cheilosia* an available name (Article 12b(5) of the Code), though the absence of a generic description was probably the reason why many subsequent authors neglected the name; *rosarum* is fixed as the type species by monotypy. The same species is also the type of *Pyrophaena* Schiner, 1860 (p. 213) by monotypy, and *Pyrophaena* is therefore a junior objective synonym of *Cheilosia* Panzer.

2. Meigen (1822, p. 296) noted that 34 species of *Syrphus* Fabricius, 1775 which he had described on preceding pages formed a distinct group. He described the characters of the group but concluded that they were insufficient to establish a new genus, which he had planned to name *Cheilosia*, and he therefore retained the species within *Syrphus*.

An application (Case 2749) which included proposals for the conservation of *Cheilosia* Meigen, 1822 and *Pyrophaena* Schiner, 1860, as well as *Eristalis* Latreille, 1804, *Helophilus* Fabricius, 1805, *Xylota* Meigen, 1822 and *Eumerus* Meigen, 1822, was received from Dr T. Zatwarnicki (*Academy of Agriculture, Wroclaw, Poland*) shortly after the present one. An application to conserve the last four names is now published (see BZN **48**: 308–311).

The name *Cheilosia*, first published in synonymy with *Syrphus*, is an available name (Article 11e), with authorship ascribed to Meigen (Article 50g). Subsequent authors (Lepeletier & Serville, 1828, p. 512), as well as Meigen himself (1838, pp. 123–129, pl. 68, figs. 1–6), accepted *Cheilosia* as a distinct genus. Meigen (1838) placed 48 species in the genus. The authorship and concept of *Cheilosia*, as used in the first half of the 19th century, was variable (see Goffe, 1944, pp. 238–240), but Walker (1851, pp. 280–284), and later Loew (1857) in his revision of the genus, accepted Meigen's (1822) authorship and concept. They have been followed by nearly all subsequent authors in further revisions (Becker, 1894; Hull & Fluke, 1950), in catalogues (Aldrich, 1905, pp. 351–353; Bezzi & Stein, 1907, pp. 21–41; Knutson, Thompson & Vockeroth, 1975, pp. 329–330), and in many hundreds of taxonomic, faunistic and ecological papers. The replacement name *Chilosia* Agassiz, 1846 (p. 80) (an unjustified emendation of *Cheilosia* Meigen under Article 33b(iii)) was sometimes used in taxonomic literature until 1956 (Violovitsh, 1956, p. 466) but from 1960 all authors have used the name *Cheilosia* Meigen.

3. Westwood ([1840], p. 137) designated *Musca scripta* Linnaeus, 1758 (p. 594) as the type species of *Cheilosia* Meigen but *scripta* was not among the originally included species. Rondani (1856, p. 51) designated *Eristalis scutellatus* Fallén, 1817 (p. 55) (wrongly credited to Fabricius) as the type of *Cheilosia* (wrongly credited to Megerle); *scutellatus* was an originally included species and Rondani's designation is valid. Wirth, Sedman & Weems (1965, p. 583) and Knutson, Thompson & Vockeroth (1975, p. 329) accepted *scutellatus* as the type species. However, Meigen (1822, p. 289) noted, under *Syrphus flavipes* Panzer, 1798 (p. 10, pl. [10]), that he obtained material of this species from Megerle under the name *Cheilosia depila* (a nomen nudum), and this has led some authors (Coquillett, 1910, p. 521 and Goffe, 1944, p. 239) to record that *Cheilosia* Meigen was established as a monotypic genus with *Syrphus flavipes* as the type. Coquillett's (1910) action constitutes a type designation (Article 69a(iv)) but postdates that of Rondani (1856). The species *Syrphus rosarum*, the type of *Cheilosia* Panzer, was included in Meigen's (1822) work but was not among the species included in his concept of *Cheilosia*.

4. *Cheilosia* Panzer, [1809] and *Cheilosia* Meigen, 1822 are placed in different subfamilies of SYRPHIDAE, i.e. SYRPHINAE and MILESIINAE respectively. Goffe (1944, pp. 244–245) noted that *Cheilosia* Panzer was an available name, and used it in place of *Pyrophaena* Schiner, 1860 (a junior objective synonym). He replaced *Cheilosia* Meigen (a junior homonym) by *Cartosyrphus* Bigot, 1883 and *Chilomyia* Shannon, 1922. With few exceptions (e.g. Kloet & Hincks, 1945, p. 381) Goffe's changes in nomenclature have not been accepted and both *Cheilosia* Meigen and *Pyrophaena* Schiner are in current use (see para. 2). Wirth, Sedman & Weems (1965, pp. 578, 583) and Peck (1988, p. 75) have previously commented that for stability of nomenclature the Commission should be asked to suppress *Cheilosia* Panzer.

5. The current usage of subgeneric names within *Cheilosia* was established by authors (see, for example, Hull & Fluke, 1950) who considered *Syrphus flavipes* Panzer to be the type species (see para. 3). The two principal subgenera are *Cheilosia* (with hairy eyes) and *Cartosyrphus* Bigot, 1883 (with naked eyes). Subgeneric names in *Cheilosia* are widely used by American authors, although rarely in Europe and Asia. *Eristalis scutellatus* Fallén, the type species of *Cheilosia* Meigen by Rondani's (1856) designation, is a species with naked eyes, although it was included by Meigen (1838,

p. 123), probably due to an error or the misidentification of some specimens, in his species-group 'A' (with hairy eyes). Recognition of *scutellatus* as the type species would mean that the subgenus *Cartosyrphus* would be renamed *Cheilosia* and the subgenus currently named *Cheilosia* would need another name. Such changes in nomenclature are destabilising and we therefore propose the fixation of *Syrphus flavipes* Panzer, 1798 as the type species.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  (a) to suppress the generic name *Cheilosia* Panzer, [1809], and all uses of the name *Cheilosia* prior to the publication of *Cheilosia* Meigen, 1822, for the purposes of both the Principle of Priority and the Principle of Homonymy;
  (b) to set aside all designations of type species for the nominal genus *Cheilosia* Meigen, 1822 prior to that by Coquillett (1910) of *Syrphus flavipes* Panzer, 1798;
(2) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Cheilosia* Meigen, 1822 (gender: feminine), type species by subsequent designation by Coquillett (1910), *Syrphus flavipes* Panzer, 1798, as ruled in (1)(b) above;
  (b) *Pyrophaena* Schiner, 1860 (gender: feminine), type species by monotypy *Syrphus rosarum* Fabricius, 1787;
(3) to place on the Official List of Specific Names in Zoology the following names:
  (a) *flavipes* Panzer, 1798, as published in the binomen *Syrphus flavipes* (specific name of the type species of *Cheilosia* Meigen, 1822);
  (b) *rosarum* Fabricius, 1787, as published in the binomen *Syrphus rosarum* (specific name of the type species of *Pyrophaena* Schiner, 1860);
(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
  (a) *Cheilosia* Panzer, [1809], as suppressed in (1)(a) above;
  (b) *Chilosia* Agassiz, 1846 (an unjustified emendation of *Cheilosia* Meigen, 1822).

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Case 2552

Anniella pulchra Gray, 1852 (Reptilia, Squamata): proposed designation of a neotype

Robert W. Murphy
*Department of Ichthyology and Herpetology, Royal Ontario Museum,
100 Queens Park, Toronto, Ontario, Canada M5S 2C6*

Hobart M. Smith
*Department of EPO Biology, University of Colorado, Boulder, Colorado
80309, U.S.A.*

Abstract. The purpose of this application is to conserve the specific name of *Anniella pulchra* Gray, 1852 in accordance with its accustomed understanding and usage by the designation of a neotype. *A. pulchra* is the type species of *Anniella* Gray, 1852, a genus of fossorial, legless lizards from California and Baja California (Norte), Mexico.

1. In 1852 Gray described *Anniella pulchra*, a new genus and species of fossorial, legless lizard collected from California during the global voyage of *H.M.S. Herald*, 1845–1851. Gray's description (p. 440) was brief and he did not provide measurements or designate a type specimen. Three weeks after this publication Sir John Richardson, curator of the biological material collected during the voyage and then housed in the Haslar Royal Naval Hospital, presented a small number of reptile specimens to the British Museum, now at the Natural History Museum, London (see Hunt, 1983, p. 80). These included a single specimen of a small, legless lizard which was registered (no. BM 1852.12.4.3; not BM 1852.4.12.3 as given in Hunt, 1983, p. 83) as *A. pulchra* Gray, 1852 with the locality 'California'. The specimen was re-registered (no. BM 1946 8.29.32) after the Second World War and noted as the 'type'.

2. In the introduction to his paper, Gray (1852, p. 437) noted that 'the following new genera [including *Anniella*]... will be figured in the forthcoming work of the Zoology of the Voyage', and in 1854 Richardson (pp. 154, 155, pl. 28, figs. 1–5) described in detail and figured a specimen from the voyage which he called '*Anniella pulchra* Gray'. It is now recognized that the description by Gray (1852) does not match that by Richardson (1854) of '*pulchra*' and indeed that two species were involved (Hunt, 1983, pp. 80–81; Murphy & Smith, 1985, p. 68; see para. 4 below). Richardson's material has since been lost (see Hunt, 1983, p. 81). Subsequently, Boulenger (1885, pp. 299–300) described *A. pulchra* sensu Gray (1852) in greater detail and recorded the single specimen presented by Richardson to the Natural History Museum, London as the 'type'. However, Gray (1852) did not state on how many specimens he based his name; since the specimens dealt with by Gray and by Richardson (1854) were from the same collection they may be regarded as syntypes of *A. pulchra* Gray, 1852 (Recommendation 72B of the Code). Neither Gray nor Richardson realized that two taxonomic species were involved.

3. For nearly 140 years the species of fossorial, legless lizard distributed from Bahía San Quentín, Baja California (Norte), Mexico northward to the San Francisco area of central California has been referred to as *Anniella pulchra* Gray, 1852. Following Cope (1864), Bocourt (1881), Baur (1894) and Van Denburgh (1897), authors adopted the name sensu Richardson (1854), and not sensu Gray (1852), not realizing that they were different (see Hunt, 1983, p. 81). Two subspecies have been recognized, *Anniella pulchra pulchra*, a wider ranging form, and *Anniella pulchra nigra* Fischer, 1885 (pp. 9, 10) with a more restricted, northerly distribution. A second more southerly species, *A. geronimensis* Shaw, 1940 (pp. 225–227, figs. 1, 2) was described from Isla San Gerónimo and adjacent coastal sand dunes of the peninsula of Baja California (Norte) near Colonia Guerrero southward to Punta Baja. Both species occur in the vicinity of the purported type locality of *pulchra*, the region around Bahía San Quintín.

4. Hunt (1983) reviewed the genus and concluded that the specimen given to the Natural History Museum, London by Richardson (see para. 2), the so-called 'holotype' of *A. pulchra*, was a specimen of the more southerly species, *A. geronimensis* Shaw, 1940. Hunt referred to this more southerly species as *A. pulchra*, listing *geronimensis* as a junior synonym; he adopted *A. nigra nigra* Fischer, 1885 for the northern taxon formerly called *pulchra nigra*, and proposed a new name, *A. nigra argentea* Hunt, 1983 (p. 86) for the widespread subspecies previously known as *A. pulchra pulchra*.

5. The literature concerning the genus *Anniella* is extremely diverse, only a small portion of it being taxonomic. Numerous local and state lists and reviews, ecological accounts, locality records, range extensions, popular and amateur works have used the name. The usage of *pulchra* Gray, 1852 sensu Richardson (1854), both before and after 1940 referring to the northern species of *Anniella*, has been extensive and includes a significant amount of morphological literature, popular field guides and state check lists. A representative list of over 100 references is held by the Commission Secretariat and includes works by Blair et al. (1968), Grassé (1970), Wermuth (1965) and Wenner & Johnson (1980). Only Bury (1983) adopted the nomenclature of Hunt (1983). Stebbins (1985), in his revised field guide, retained the current nomenclature pending the outcome of this petition (Stebbins, 1983, personal communication).

6. Adoption of the re-arrangement of the names in *Anniella* proposed by Hunt (1983) would result in significant and unnecessary confusion in the nomenclature. We propose to conserve the current usage of *Anniella pulchra* Gray, 1852 by designating specimen no. 64656 in the Museum of Vertebrate Zoology, University of California, Berkeley, U.S.A. as the neotype. This is an adult male, collected 0.8 km south-east of Pinnacles National Monument, San Benito County, California on 17 March 1956 by Robert C. Stebbins. The specimen is the holotype of Hunt's (1983) subspecies *Anniella nigra argentea* and the latter taxon becomes a junior objective synonym of *Anniella pulchra* Gray, 1852. We canvassed the opinions of 15 herpetologists concerned with *Anniella* and reported their overwhelming support for the designation of a neotype for *A. pulchra* (Murphy & Smith, 1985, p. 68).

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type specimens for the nominal species *Anniella pulchra* Gray, 1852, and to confirm the neotype designation in para. 6 above;

(2) to place on the Official List of Generic Names in Zoology the name *Anniella* Gray, 1852 (gender: feminine), type species by monotypy *Anniella pulchra* Gray, 1852;

(3) to place on the Official List of Specific Names in Zoology the name *pulchra* Gray, 1852, as published in the binomen *Anniella pulchra* (specific name of the type species of *Anniella* Gray, 1852), and as defined by the neotype designated in para. 6 above;

(4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *argentea* Hunt, 1983, as published in the trinomen *Anniella nigra argentea* (a junior objective synonym of *Anniella pulchra* Gray, 1852).

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Case 2746

Anas arcuata Horsfield, 1824 (currently *Dendrocygna arcuata*; Aves, Anseriformes): proposed conservation of the specific name

Anthea Gentry

Secretariat, International Commission on Zoological Nomenclature

Abstract. The purpose of this application is to conserve the specific name of *Dendrocygna arcuata* (Horsfield, 1824), which is currently in use for the wandering tree duck of Indonesia, other East Indies islands and northern Australia. The name was first proposed as a replacement for *D. javanica* (Horsfield, 1821), the valid name for the Indian tree duck.

1. Horsfield (1821, p. 199) described *Anas javanica* from Java. He was aware that his material included two different forms and he described the second separately, as 'var. ß', although he considered the two forms to be one species.

2. Later Horsfield (1824, p. [294], pl. [65]) gave a more extensive description and a coloured plate of what he believed to be the same species, under the name *Anas arcuata*. The new name was proposed to replace *A. javanica*. Horsfield's *Zoological researches in Java* was published, unpaginated and with unnumbered plates, in eight parts. Only the plates were dated, 1821–1824 (see Horsfield, 1824, pp. [xi]–[xii] for the composition of each part; Richmond, 1919, p. 475 and Sherborn, 1922, p. lxix for the dates of publication). Plate [65], on which the illustration of *A. arcuata* appeared, bore the date 'April 1824'. Horsfield's work included a section (pp. [iii]–[x]) 'General catalogue of Javanese birds, arranged in the museum of the Honourable East India Company'. The catalogue was printed in two columns; the first column showed the names used in Horsfield's 1821 paper, and Horsfield noted (p. [iii]): 'The second column exhibits the changes which have been occasioned since this period, by the rejection of *topical* names, by the introduction of several names employed in the Nouveau Recueil de Planches coloriées d'Oiseaux, published by M.M. Temminck and Laugier, and by other necessary alterations in Nomenclature'. *Anas arcuata* appeared (p. [x]) in the second column, opposite the 1821 name *A. javanica*. When describing the species Horsfield (p. [294]) adopted the name *arcuata* and *javanica* appeared as a synonym. Horsfield commented: 'For the name of *Anas javanica*, originally applied to it, I have substituted the name by which, according to the information communicated to me by M. Temminck, it is distinguished by M. Cuvier, in the Museum of Paris, in the specimens presented by M. Leschenault'.

An application for the conservation of *Anas arcuata* Horsfield, 1824 was submitted by Dr G.F. Mees (*Nationaal Natuurhistorisch Museum, Leiden, The Netherlands*) on 13 November 1989. In 1991 Dr Mees wrote to say that, following his retirement, he no longer wished to pursue the case and it has therefore not been put forward in his name.

3. Blyth (1865, pp. 38–39) was the first to point out that Horsfield's 1821 material was composite, and that the bird described and illustrated in 1824 was the 'var. ß' of the earlier publication, and a different species. Since well before the end of the 19th century it became generally accepted that Horsfield had, inadvertently, described two different species.

4. Mathews (1911, p. 9) noted that *Anas arcuata*, as published by Horsfield (1824), was a synonym of *A. javanica*. He suggested use of the name *Dendrocygna gouldi* Gould, 1865 (p. 374) for the species called *arcuata*, and rejected the earlier names *Anas badia* Müller, [1842] (p. 159, a nomen nudum) and *Dendrocygna vagans* Fraser, 1846 (pl. 68 and text, described from the Philippines and therefore not acceptable to Mathews for an Australian bird). Oberholser (1921, p. 166) also commented that *arcuata*, being a substitute name for *javanica*, was an objective synonym of the latter and could not be used for a different species; he proposed the next available name, *D. vagans* Fraser, 1846, for the second species. Phillips (1922, pp. 140, 148), however, adopted both *arcuata* and *javanica* as valid, arguing that the bird described and illustrated by Horsfield in 1824 was a different species from that described in 1821. Riley (1924, p. 33) also used both names, for 'perfectly distinct species'.

5. Following the works of Phillips (1922) and Riley (1924) the duck described and illustrated by Horsfield (1824) has been known by the name *arcuata* and both names, *javanica* and *arcuata*, have been used as valid in the ornithological literature (see, for example, Gooders, 1969, pp. 182–184; Mayr & Cottrell, 1979, pp. 428–429; and Howard & Moore, 1980, p. 69). It would now be undesirable to reject *arcuata* and replacing the name would result in considerable confusion (see Mees, 1989, pp. 368–369).

6. Horsfield did not mention the specimens on which his names were based in either his 1821 or 1824 publications. Warren (1966, p. 146) listed a specimen, no. 1880.1.1.4742, from Horsfield's Javan material in the collections (now at Tring) of the Natural History Museum, London as a syntype of *javanica* Horsfield, 1821, and noted that Salvadori (1895, p. 159) had recorded the specimen as 'Type of the species'. Warren also recorded (1966, p. 19) a specimen, no. 1880.1.1.2436, as an adult syntype of *arcuata* and noted that Salvadori (1895, p. 155) had referred to this as the 'Type of Horsfield's plate, Zool. Res. pl. 65'. Warren (1966, p. iii) noted that 'listing of a syntype as 'the type', as was often done in the *Catalogue of Birds* (BM 1874–1898), does not constitute its designation as lectotype; nor of course does its listing in the present work'. Specimen no. 1880.1.1.4742 mentioned above is here designated as the lectotype of *Anas javanica* Horsfield, 1821. It is desirable that a lectotype also be designated for *A. arcuata* Horsfield, 1824.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the specific name *arcuata* Horsfield, 1824, as published in the binomen *Anas arcuata*, is to be treated as the specific name of a then new nominal species;

(2) to designate specimen no. 1880.1.1.2436 in the Natural History Museum (Tring) as the lectotype of *Anas arcuata* Horsfield, 1824;

(3) to place on the Official List of Specific Names in Zoology the name *arcuata* Horsfield, 1824, as published in the binomen *Anas arcuata* and as defined by the lectotype designated in (2) above.

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Comment on the proposed conservation of *Laeocochlis* Dunker & Metzger, 1874 (Mollusca, Gastropoda) as the correct spelling

(Case 2769; see BZN **48**: 27–30)

Philippe Bouchet
Museum national d'Histoire naturelle, 55 Rue Buffon, 75005 Paris, France

Anders Warén
Naturhistoriska Riksmuseet, Box 50007, 10405 Stockholm, Sweden

As noted by Mr Heppell (BZN **48**: 28, para. 5) *Laiocochlis* (or *Laeocochlis*) *pommeraniae* Dunker & Metzger, 1874 has been considered a synonym and often been cited in the literature on Recent molluscs as *L. granosa* (Wood, 1848), an upper Pliocene fossil, and a junior primary homonym of *Cerithium granosum* Borson, [1822]. In our comments below we show that the valid name of this species is *L. sinistrata* (Nyst, 1835) and not, as stated in the application, *L. macandraeae* (A. Adams, 1856), and we defend the view that the spelling *Laiocochlis* is the one that should be ruled to be correct.

Altena (1954, p. 47) introduced *Laiochochlis* (sic) *woodi* as a replacement name for the preoccupied *Cerithium granosum* Wood, 1848. Glibert (1958a, p. 9) separated *Laiocochlis* (sic) *sinistrata* (Nyst, 1835), with a teleoconch sculpture of only spiral cords, from *L. woodi* Altena, 1954, with a teleoconch sculpture of both spiral cords and axial riblets forming almost square reticulation. He also compared two Recent Norwegian shells and found them to be identical with *L. sinistrata*. Glibert listed *L. sinistrata* from the Luchtbal, Kattendyk and Austruweel sands, all of 'Plio-Pleistocene' ('Scaldisien') age. The faunal assemblages of these sands (Glibert, 1957, 1958b) appear to indicate reworked deposits but they do contain cold water species now living in northern Europe; *Calliostoma occidentalis* is listed as common. Glibert (1958a) designated a neotype of *Cerithium sinistratum* Nyst, 1835 (p. 28) in the collection of the Institut Royal des Sciences Naturelles de Belgique.

We have examined Plio-Pleistocene *Laiocochlis* from British as well as Belgian deposits, and about 200 Recent specimens from the Northeast Atlantic. We are not certain if the British (*L. woodi*, i.e. *C. granosum* Wood) and Belgian (*L. sinistrata*) fossils are specifically distinct, but the Recent material is certainly conspecific with Belgian fossil *L. sinistrata*. *Triforis macandraeae* A. Adams, 1856 and *T. nivea* M. Sars, 1859 are junior subjective synonyms, as is *L. pommeraniae* Dunker & Metzger, 1874. Gründel (1980, fig. 34) figured one of two syntypes of *L. pommeraniae* in the collection of the Zoologisches Museum, Berlin.

Kuroda (1943, p. 6) named a second species from the North Pacific as *Laiochochlis sasamorii*. It is cited with this spelling by Kuroda & Habe (1952, p. 61), Habe (1962, p. 28), Habe & Ito (1965, p. 26), Golikov & Gulbin (1978, p. 218), contrary to the statement in BZN **48**: 28, para. 4, and with the spelling *Laiocochlis* by Golikov (1988, p. 502). No other spelling has been used by Japanese or Russian authors. *Laiocochlis* (sic) *sasamorii* is the type species of *Sasamocochlis* Gründel, 1980.

In addition to the usages listed by Heppell (para. 4), the spelling *Laiocochlis* has been used for the European species by Beets (1946, p. 47), Glibert (1958a, p. 9; 1958b, p. 11) and Gründel (1980, pp. 249–255). The spelling *Laiochochlis* was used by Altena (1954, p. 47) and Altena, Bloklander & Pouderoyen (1955, p. 31).

Article 32c(ii) of the Code states that 'incorrect transliteration or latinization ... are not to be considered inadvertent errors'. Consequently, we would rather follow Kobelt's 1875 statement (see BZN **48**: 27, para. 3) that the spelling *Laiocochlis* was intended by Dunker & Metzger. In view of the usage of *Laiocochlis* or *Laiochochlis* by many modern European, Japanese and Russian authors, we conclude that stabilizing the spelling *Laiocochlis* would serve best the interest of nomenclatural stability. We believe that the Commission should not be concerned with the valid name of the type species of the genus but in any case proposal (3) on BZN **48**: 28 should be dropped.

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Comment on the proposed conservation of the specific name of *Mitobates conspersus* (Perty, 1833) (Arachnida, Opiliones)

(Case 2759; see BZN **48**: 105–106)

(1) L.B. Holthuis

Nationaal Natuurhistorisch Museum, Postbus 9157, 2300 RA Leiden, The Netherlands

The specific name *triangulus* Sundevall, 1833 (April) is that of the type species of *Mitobates*, described in the same paper, and it has priority over *conspersum* Perty, 1833 (December). The only reason to conserve *conspersum* is that since 1879 it has wrongly been considered to be the senior synonym, and there is no indication that the application of priority will cause confusion, unless there are further arguments.

(2) Adriano B. Kury
Departamento de Zoologia, Universidade Federal de Rio de Janeiro, Ilha da Cidade Universitária, Rio de Janeiro, RJ, 21941, Brazil

Dr L.B. Holthuis has asked for further information to justify the conservation of *conspersus* (Perty, December 1833) by suppression of *triangulus* Sundevall, published eight months earlier but never used as a senior synonym. As mentioned in my application (para. 3) since 1879 *conspersus* had been taken to be senior.

One of the references previously cited (Soares & Soares, 1949) is the prime reference for the GONYLEPTIDAE, and another (Mello-Leitão, 1932) is a monograph on Brazilian Opiliones, and both used *conspersus*. As stated in the application, Perty's type material of *conspersus* is available in the Berlin Museum, while Sundevall's article was very brief, with no illustrations or indication of deposition of any type material, and the information provided by him is inadequate to identify his species with certainty. When describing the new subfamily MITOBATINAE Simon (1879) regarded *M. conspersus* as the typical mitobatine.

Although the literature on Neotropical harvestmen is very sparse *conspersus* has been treated as the valid name of the type species since long ago and I think the resurrection of *triangulus* would be undesirable.

Comment on the proposed conservation of *Rhinapion* Beguin-Billecocq, 1905 (Insecta, Coleoptera)

(Case 2757; see BZN **48**: 135–136)

M.A. Alonso-Zarazaga
Museo Nacional de Ciencias Naturales, J.Gutiérrez Abascal 2, 28006 Madrid, Spain

In a letter forwarded by the Executive Secretary, Dr L.B. Holthuis (*Nationaal Natuurhistorisch Museum, Leiden, The Netherlands*) has referred to *Rhinapion* Beguin-Billecocq, 1905 as a 'perhaps rather unimportant generic name, the loss of which would not cause much inconvenience', and has asked what would be the valid name for the genus (or subgenus) if it were not conserved.

My general view on priority (see BZN **47**: 213–214) follows that expressed recently by Ng (BZN **48**: 87–91), and it is clear that the older a synonym used as valid the less are the chances of finding a yet more senior name. Thus the Principle of Priority improves stability.

However, there is no known synonym or replacement name of *Rhinapion* Beguin-Billecocq. It would have been possible to write a short paper inventing a replacement name, but it would have taken just as much time and effort as writing the application, and in future a senior synonym of the new name might have been found. There are users of nomenclature who do not want to learn new names of taxa which are familiar to them. Also, from an ethical point of view, I wonder whether we have a right to cross out with one stroke of the pen the work of a former zoologist. With regard to the 'importance' of *Rhinapion* Beguin-Billecocq, I have found new species of economic interest in material sent by applied entomologists. It may be that species of *Rhinapion* are as numerous and injurious as those of *Piezotrachelus*.

Comments on the proposed conservation of *Cryptus* Fabricius, 1804 (Insecta, Hymenoptera)

(Case 2324; see BZN **44**: 9–10)

(1) Henry Townes (deceased)
American Entomological Institute, Gainesville, Florida 32608, U.S.A.

It is depressing to see a proposal to deviate from the normal method of deciding zoological names by the Principle of Priority. I protest against this deviation.

As to usage, the preoccupied name *Cryptus* Fabricius, 1804 was much used in older literature, but as a vaguely understood taxon for species now distributed in about 60 genera and several subtribes. In the last 40 years there have been some 14 nomenclaturally influential publications which either accepted usage of the preoccupied name *Cryptus* in the ICHNEUMONIDAE or rejected it; two of these accepted it and 12 did not (see the references listed below).

I know from personal experience that in most major collections in the Nearctic, Neotropic, Ethiopian and Oriental regions the name *Cryptus* is not used in labeling specimens. European museums are divided (or confused), which might lend support to van Rossem's application, but the rest of the world has adopted the correct nomenclature and this should not be ignored.

I try to be consistent and logical in scientific nomenclature and I therefore treat *Cryptus* Fabricius as a preoccupied name. A voted decision by the Commission does not change compelling bibliographic facts.

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(2) G. van Rossem (deceased)
Ede, The Netherlands

I agree with Dr Townes (above) that it is disappointing that no consensus has been reached on the usage of the name *Cryptus* Fabricius, 1804, which is the basis of the family-group name CRYPTINAE Kirby, 1837. The Commission should endorse Opinion 157 (1945; see para. 5 of my application) and suppress the senior homonym *Cryptus* Panzer, 1804. Nevertheless, there could still be instability of usage in the subfamily name since Townes (1962) adopted GELINAE while Fitton & Gauld (1978) proposed PHYGADEUONTINAE; both sets of authors rejected CRYPTINAE although this is the senior name.

(3) M.G. Fitton & I.D. Gauld
The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Mr van Rossem was correct in the facts that he presented but failed to place them in the context of the recent taxonomic history of the family ICHNEUMONIDAE. The question of whether or not *Cryptus* Fabricius should be conserved is not as simple as it might appear.

Cryptus Fabricius, 1804 is a junior homonym of *Cryptus* Panzer, 1804 and is thus objectively invalid despite having been placed on the Official List by Opinion 157 (February 1945). Townes (in Townes & Townes, 1951) was therefore correct to adopt the next available name, *Trachysphyrus* Haliday, 1836 (p. 317), for the ichneumonid genus. The latter name was used by many subsequent authors until Townes (1970) restricted it to a South American species group and adopted the next available name, *Itamoplex* Foerster, [1869] (p. 188), for the more widely distributed species group previously known as *Cryptus* Fabricius.

Townes's actions have been accepted by many authors. We consider that *Cryptus* is not currently 'widely used'. Also, there was ample opportunity for dissenters to apply to the Commission but no one did so in the 28 years between 1951 and 1979, when van Rossem first approached the Commission.

Changes in the names of the associated family-groups, referred to by van Rossem (para. 4 of his application), result from Townes not following the Code and the subsequent need to apply the Code to the subfamilies and tribes recognized by him. We (Fitton & Gauld, 1976, 1978) discussed the problems pertaining to ichneumonid family-group names and attempted to resolve them by a strict adherance to the Code. We concluded (1978) that the correct name for the subfamily which included *Itamoplex* was PHYGADEUONTINAE, and our interpretation has been accepted by a number of authors (for example, Sawoniewicz, 1982; Jussila, 1984; Austin, 1985; Askew & Shaw, 1986; Gupta, 1987).

When Bradley (1919) first drew attention to the homonymy of *Cryptus* the family ICHNEUMONIDAE was divided into only five subfamilies. *Cryptus* Fabricius was well known as the base of the name of one of these subfamilies and as a genus in which a large number of species had originally been placed. The classification of the ICHNEUMONIDAE is now more complex and 31 subfamilies are currently recognized (Gauld & Bolton, 1988). Only a small number of the species described in *Cryptus* now remain in the genus that would bear that name if it were not a homonym. No species of the genus is referred to widely in non-taxonomic literature. Although we concede that *Cryptus* has been widely used (see Fitton & Gauld, 1978), we can see no need to conserve the name on the grounds of current usage or stability and universality of nomenclature.

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(4) W.R.M. Mason

22 Oakwood Avenue, Nepean, Ontario, Canada, K2E 6A5

I strongly support Mr van Rossem's application and urge an affirmative response by the Commission. The decision is of primary importance to workers in the field of parasitic Hymenoptera.

Since the publication of the application in 1987 ichneumonid workers have been restrained from making nomenclatural changes since 'existing usage is to be maintained' (Article 80 of the Code). However, the divided and multiple usages prevailing at the generic and family-group level during the last 20 years (there are simultaneously at least three generic and four family-group names) make it most difficult to establish 'existing usage' in recent works. This uncertainty severely hampers workers who conscientiously wish to abide by the Code in their publications and makes a decision by the Commission urgently needed.

The names used for the genus, tribe and subfamily in recent years are as follows:

Townes (1962)	*Trachysphyrus*	MESOSTENINI	GELINAE
Townes (1969)	*Itamoplex*	MESOSTENINI	GELINAE
Porter (1967)	*Trachysphyrus*	MESOSTENINI	
Fitton & Gauld (1976)		MESOSTENINI	HEMITELINAE
Fitton & Gauld (1978)		MESOSTENINI	PHYGADEUONTINAE
Short (1978)	*Itamoplex*	MESOSTENINI	GELINAE
Kasparyan (1981)	*Itamoplex*	MESOSTENINI	GELINAE
Gupta (1987)	*Itamoplex*	MESOSTENINAE	(upgraded to subfamily)

The following authors, and others, have followed at least the intention of Opinion 157 and have preserved the traditional usage of *Cryptus* Fabricius, 1804, CRYPTINI and CRYPTINAE: Walkley (1958), Perkins (1959), Mason (1968), van Rossem (1969) and Carlson (1979).

Before 1951, when Townes introduced his idiosyncratic nomenclature, the use of the name *Cryptus* was universal for more than a century, even Townes himself using *Cryptus* and CRYPTINAE in his (1944) Nearctic catalogue of ichneumonids. It seems to be self-evident that Townes, by attempting to follow strict priority and several personal rules, was disregarding stability and his actions should not have been followed.

Fundamentally underlying the difficulties in the usage of *Cryptus* Fabricius was the omission from Opinion 157 of the suppression of *Cryptus* Panzer, 1804 but, incredibly, the Panzer name was ignored by ichneumonid workers for a number of years. Finally, Fitton & Gauld (1976, 1978), in a most commendable attempt to correct Townes's nomenclature, did not entirely succeed in aligning it with the Code but actually multiplied the number of family-group names replacing CRYPTINAE.

I observe that *Cryptus* Fabricius, 1804 is still a stable and universally comprehended generic name, and that CRYPTINAE Kirby, 1837 is the only stable and universally comprehended relevant family-group name. I urge the Commission to remedy the omission in Opinion 157 and return to the traditional name by approving Mr van Rossem's application. In case there may be a claim to continue use of some family-group name based on a genus other than *Cryptus* Fabricius it may be prudent to add a directive endorsing the priority of names based on *Cryptus* Fabricius.

Additional references

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Porter, C.C. 1967. A revision of the South American species of *Trachysphyrus*. *Memoirs of the American Entomological Institute*, **10**: 1–368.

Townes, H.K. 1944. A catalogue and reclassification of the Nearctic Ichneumonidae. Part 1. *Memoirs of the American Entomological Society*, **11**(1): 1–477.

Townes, H.K. 1969. Genera of Ichneumonidae. Part 1. *Memoirs of the American Entomological Institute*, **11**: 1–300.

Walkley, L.M. 1958. Family Ichneumonidae. Pp. 36–62 *in*: *Hymenoptera of America north of Mexico, synoptic catalog*. Agriculture Monograph, No. 2. First Supplement. 305 pp. United States Department of Agriculture, Washington.

(5) Klaus Horstmann
Zoologisches Institut der Universität Würzburg, D–8700 Würzburg, Röntgenring 10, Germany

I support Mr van Rossem's application. Although Townes and his co-workers and followers have used other names (*Trachysphyrus* Haliday, 1836 and *Itamoplex* Foerster, [1869]) for the genus, the name *Cryptus* Fabricius, 1804 has remained in use by authors as important as Perkins (1962), Aubert (various papers), van Rossem (1969 and later papers) and Carlson (1979).

Additional reference

Perkins, J.F. 1962. On the type species of Foerster's genera (Hymenoptera, Ichneumonida). *Bulletin of the British Museum (Natural History)*, (Entomology), **11**(8): 385–483.

(6) C. van Achterberg
Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands

I strongly support the application by the late Mr van Rossem and I hope for an affirmative response from the Commission. The intention of the decisions made by the Commission in the past was to stabilize nomenclature in the ICHNEUMONIDAE, not least that of the largest subfamily, CRYPTINAE Kirby, 1837, which includes species which are common in nearly every habitat. A mistake was made in not including *Cryptus* Panzer, 1804 in the names placed on the Official Index in Opinion 157 but the intention to conserve *Cryptus* Fabricius, 1804 was obvious and a correction should now be made. The genus includes only a few species but this is of lesser importance; the name of the subfamily should be stabilized to avoid perpetuation of the present use of three names (CRYPTINAE Kirby, 1837, GELINAE Viereck, 1918 and PHYGADEUONTINAE Foerster, [1869]). At the moment the choice of name depends largely on the scientific contacts of the author, a highly undesirable situation which should be put right by the Commission.

(7) Anthea Gentry
Secretariat, International Commission on Zoological Nomenclature

It was noted in Opinion 157 (February 1945) that the sawfly *Cryptus segmentarius* Panzer, 1804, the type species of *Cryptus* Panzer, 1804, is congeneric with *Tenthredo enodis* Linnaeus, 1767, the type species of *Arge* Schrank, 1802. The latter generic name, which was placed on the Official List in the same Opinion, is thus the valid name for the sawfly genus and *Cryptus* Panzer has rarely been used (see Carlson, 1979, p. 316). Carlson (1979, p. 316) recorded *C. segmentarius* as a synonym of *Arge rustica* (Linnaeus, 1758).

Unfortunately, *Cryptus* Panzer was not suppressed in Opinion 157 because when the Commission had in 1935 discussed the case Panzer's name was thought probably to date from 1805 and its 'suppression would not be essential'. Sherborn (1923, p. 567) recorded the date for Heft 88 of Panzer's work, in which *Cryptus segmentarius* was published, as 1804. Fitton & Gauld (1976, p. 249) noted that Fabricius (1804) included references to parts of Panzer's work issued after Heft 88 containing *C. segmentarius*, and in 1973 Carlson found (see Carlson, 1979, p. 316) that Fabricius (1804, p. 35) referred to Heft 88 of Panzer. *Cryptus* Panzer, 1804 is thus senior to *Cryptus* Fabricius of the same year.

Townes (1951, 1969, 1970) replaced *Cryptus* Fabricius, 1804 as a junior homonym of *Cryptus* [Jurine], [1801], because he held that for procedural reasons the suppression of the 'Erlangen List' (Opinion 135, August 1939) was invalid. The names adopted by Townes (1951 and 1970), *Trachysphyrus* Haliday, 1836 and *Itamoplex* Foerster, [1869], are subjective synonyms of *Cryptus* Fabricius. The type species of *Trachysphyrus* is *T. imperialis* Haliday, 1836 by monotypy. Foerster ([1869], p. 188) introduced the name *Itamoplex* for a genus without included species. Ashmead (1899, p. 570) included three species in the genus and Viereck (1914, p. 79) designated one of these as the type: *Cryptus americanus* Cresson, 1864 (a junior synonym of *Ischnus albitarsis* Cresson, 1864, p. 194; see Townes, 1970, p. 193 and Carlson, 1979, p. 462). Viereck recorded *Itamoplex* as a junior synonym of *Cryptus* Fabricius. The subfamily name GELINAE Viereck, 1918 (p. 73), adopted by Townes (1962), was based on *Gelis* Thunberg, 1827. The tribal name MESOSTENINI, also adopted by Townes (1962) and some subsequent authors (see Dr Mason's comment above) and containing *Trachysphyrus* and *Itamoplex*, was introduced by Ashmead (1899, p. 570) based on the genus *Mesostenus* Gravenhorst, 1829 (p. 750).

Fitton & Gauld (1976, p. 247; 1978, p. 245) pointed out that many of the family-group names used by Townes, which were based on the earliest available generic name in each group, did not comply with the provisions of the Code and were therefore invalid. In place of GELINAE Viereck, 1918 (CRYPTINAE Kirby, 1837 of authors) they followed Townes (1944) and adopted (1976) HEMITELINAE Foerster, [1869] (pp. 141, 173), based on *Hemiteles* Gravenhorst, 1829 (p. 635), believing Townes to have acted as first reviser in selecting HEMITELINAE. Subsequently (1978) they adopted PHYGADEUONTINAE Foerster, [1869] (pp. 144, 181), type genus *Phygadeuon* Gravenhorst, 1829 (p. 780), after demonstrating that Townes (1944) had not acted as first reviser.

Fitton & Gauld (1976, p. 249; 1978, p. 246) pointed out that if the Commission were to suppress *Cryptus* Panzer the valid name for the genus would become *Cryptus* Fabricius, with the concomitant family-group names CRYPTINI and CRYPTINAE.

Additional references

Ashmead, W.H. 1899. Order Hymenoptera. Pp. 501–613 *in* Smith, J.B., *Insects of New Jersey*. 755 pp., 2 maps. State of New Jersey, Trenton, N.J.

Cresson, E.T. 1864. Descriptions of North American Hymenoptera, in the collection of the Entomological Society of Philadelphia. *Proceedings of the Entomological Society of Philadelphia*, **3**: 131–196 (June), 257–396 (September).

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Thunberg, C.P. 1827. *Gelis*. Insecti Genus Descriptum. *Nova Acta Regiae Societatis Scientiarum Upsaliensis*, **9**: 199–204.

Viereck, H.L. 1914. Type species of the genera of Ichneumon flies. *Bulletin of the United States National Museum*, **83**: 1–186.

Viereck, H.L. 1918. A list of families and subfamilies of Ichneumon-flies, or the super-family Ichneumonoidea (Hymenoptera). *Proceedings of the Biological Society of Washington*, **31**: 69–74.

Comments on the proposed designation of *Agathis longicauda* Boheman, 1853 as the type species of *Vipio* Latreille, 1804 (Insecta, Hymenoptera)

(Case 2614; see BZN **48**: 45–49, 248–250)

(1) W.R.M. Mason
22 Oakwood Avenue, Nepean, Ontario, Canada, K2E 6A5

I consider that Dr van Achterberg is mistaken in calling '*Ichneumon desertor* Fabricius, 1775' a synonym of *I. desertor* Linnaeus, 1758. Fabricius himself referred to the species as '*I. desertor* Linn.' '*I. desertor* Fabricius' is a misidentification and this was known even in Napoleonic times (Spinola, 1808; Nees von Esenbeck, 1812; see BZN **48**: 46, para. 5). Nees von Esenbeck (1834, p. 139) placed *Bracon deflagrator* Spinola, 1808 (a replacement name for *desertor* Linnaeus) in *Agathis* Latreille, 1804 but (p. 125) placed *desertor* sensu Fabricius in *Bracon* (*Vipio*).

The type species of *Vipio* Latreille, 1804 is not *desertor* Linnaeus. Foerster (1862) clearly designated *desertor* sensu Fabricius as the type and I believe that this was deliberate because he (along with most other 19th century students of braconines) would have been familiar with the misidentification. If not, why did Foerster use Spinola's (1808) replacement name *deflagrator* for *desertor* Linnaeus when designating the type species of his new genus *Cremnops* in the same publication?

It follows from Articles 11i and 70c of the Code that, by his (1862) action in deliberately designating a known misidentification as the type of *Vipio*, Foerster created a new nominal species, *Vipio desertor* Foerster, 1862, and this is not the same nominal species as *desertor* Linnaeus. Thus, since the true identity of *V. desertor* Foerster can scarcely be determined from the composite series of specimens left in the Fabricius collection (van Achterberg, 1982), and since the traditional identity has had an element of vagueness for well over a century, we request the Commission to designate a suitable nominal species (*Agathis longicauda* Boheman, 1853) as the type of *Vipio*.

With regard to the 'maintenance of existing usage' specified by the Code (Article 80), I believe that in this case the usage should be that found in the literature in the last few decades before 1982, when Dr van Achterberg published his findings on examining the Fabricius collection. The summary of usage at the time is given in the application (BZN **48**: 47, paras. 10 and 11).

Dr van Achterberg claims that *Vipio* is a senior synonym of *Cremnops*. It should be noted that *Vipio* is the type genus of the family-group VIPIONIDAE Viereck, 1916 and it seems most unlikely that a generic revision will ever result in moving it to a different subfamily in the way that misapplication of the rules might.

Additional reference

Nees von Esenbeck, C.G. 1834. *Hymenopterorum Ichneumonibus affinium monographiae, genera Europaea et species illustrantes*, vol. 1. xii, 320 pp. Stuttgart.

(2) Robert Wharton
Department of Entomology, Texas A & M University, College Station, Texas 77843, U.S.A.

It seems clear from the early literature, as reviewed in the original application, that Fabricius (1775) misidentified *Ichneumon desertor* Linnaeus, and that the species which came to be associated with this misidentification was deliberately chosen as the type species of *Vipio* Latreille, 1804. Article 70c thus applies and fixation by the Commission of *Agathis longicauda* Boheman, 1853 as the type species would solve the problem of the identity of *Ichneumon desertor* sensu Fabricius.

The fact that Latreille (1804) in his original description of the genus described *Vipio* as a braconine rather than an agathidine indicates that a misidentification of *desertor* Linnaeus (an agathidine) was involved. Foerster (1862) selected *desertor* sensu Fabricius as the type, from among the three species originally included by Latreille, and he also clearly placed *Vipio* in the BRACONINAE. Transfer of *Vipio* to the AGATHIDINAE thus not only goes against all usage prior to 1982 but is also contary to the original definition of the genus.

Publications subsequent to van Achterberg (1982) serve only to affirm that stability has not been achieved and that a decision by the Commission is needed to resolve this problem. At stake is not merely the replacement of one generic name by another. Rather, it is the transfer of a widely used name (*Vipio*) from the subfamily BRACONINAE to the subfamily AGATHIDINAE which will have the greatest impact on stability. *Vipio* and VIPIONINI had never been included in the AGATHIDINAE prior to 1982, and the two subfamilies are not closely related.

I have recently been able to borrow the type series of *Agathis longicauda* Boheman, 1853 thanks to the diligent efforts of Per Inge Persson of the Riksmuseum, Stockholm, who located the series and provided information on its status. The specimens are in excellent condition, match the original description, and the four specimens examined all represent a single species. *A. longicauda* is a true *Vipio* in the sense of *desertor* sensu Fabricius. I had been led to believe that there was a holotype (see BZN **48**: 46, para. 7), but there is no question from the labelling on the specimens that there is actually a type series. I have labelled a lectotype (bearing the following labels: (1) Sc. ar. [=Scanis arid]; (2) Bhn [=Boheman]; (3) 487 91 [pink label designating loan number for 1991]; (4) Riksmuseum Stockholm [green]; (5) my lectotype label [red]) and herewith designate this specimen as such.

(3) Paul M. Marsh
Systematic Entomology Laboratory, United States Department of Agriculture, c/o National Museum of Natural History NHB–168, Washington, DC 20560, U.S.A.

I wish to support the proposal by Drs R.A. Wharton & W.R.M. Mason concerning the braconid genus *Vipio* Latreille, 1804. The genera *Vipio* and *Cremnops* Foerster, 1862 have been in use for very many years. *Cremnops* was revised for North America in 1961 and *Vipio* is presently being studied. It is critical to stabilize these names for future studies.

(4) Scott R. Shaw & Mian Inayatollah
Department of Plant, Soil and Insect Sciences, College of Agriculture, University of Wyoming, Laramie, Wyoming 82071–3354, U.S.A.

We write to express our complete support for the application of Drs Wharton & Mason, which would maintain the usage of *Vipio* Latreille, 1804 (in BRACONINAE) and *Cremnops* Foerster, 1862 (in AGATHIDINAE). Their proposal is carefully researched and provides a reasonable solution to a difficult problem. Since this case involves the misidentification of a type species, rather than asserting authoritatively that *Vipio* is the senior synonym of *Cremnops*, van Achterberg (1982) should have referred the case to the Commission (Article 70b). The use of *Vipio* as the senior synonym of *Cremnops* would be very disruptive to current usage, since *Cremnops* has been fairly recently revised in both North America and Europe (Marsh, 1961; Nixon, 1986), and many common species are well known under that name. On the other hand, the proposal of van Achterberg (1982) has not gained any sort of general acceptance. Although Quicke (1987) did follow van Achterberg and used *Isomecus* Kriechbaumer, 1895 as the valid name for *Vipio* auctt., this position was reversed in Quicke & Sharkey (1989) where *Vipio* was once again used as the valid name for the genus in the BRACONINAE. Nixon (1986) argued against the use of the name *Vipio* in the AGATHIDINAE. The designation of *Agathis longicauda* Boheman, 1853 as the type species of *Vipio* is a viable solution that preserves the stability of both generic names in the sense that they have been used for many years. It would be most desirable for the Commission to find in favour of the proposal of Wharton & Mason.

Additional reference

Marsh, P.M. 1961. A taxonomic study of the genus *Cremnops* Foerster in America north of Mexico (Hymenoptera, Braconidae). *Annals of the Entomological Society of America*, **54**(6): 851–861.

Comments on the proposed precedence of HOMALOPTERIDAE Bleeker, 1859 over BALITORIDAE Swainson, 1839 (Osteichthyes, Cypriniformes)

(Case 2703; see BZN **47**: 277–279; **48**: 148–150, 253)

(1) Maurice Kottelat
Zoologische Staatssammlung, Münchhausenstrasse 21, D–8000 München 60, Germany

I read with some surprise Herr Hieronimus's application (BZN **47**: 277–279). This is based on a review of only part of the literature and does not reflect even a basic understanding of the taxa concerned. While disagreeing completely with it, I wish to make the following observations.

I (Kottelat, 1988) restored the family-group name BALITORIDAE Swainson, 1839, rather than using HOMALOPTERIDAE Bleeker, 1859, because BALITORIDAE is the senior name and because there are taxonomic problems in applying the name HOMALOPTERIDAE. These derive from uncertainty about the type genus of the family, *Homaloptera* van Hasselt, 1823. The type species *H. ocellata* van der Hoeven, 1833, as described and illustrated, cannot be recognized with certainty. Alleged type material in two museums (Amsterdam and Leiden) cannot be identified beyond doubt as being the types (see Hora, 1932); I am also not convinced that the specimens represent a single species. In addition, the name *H. ocellata* has usually been associated with a species (sensu Valenciennes in Cuvier & Valenciennes, 1846; Weber & de Beaufort, 1916) very different from van der Hoeven's and this usage still persists in fisheries reports and is standard practice in the country concerned (Indonesia). Moreover, *Homaloptera* as presently understood is a catch-all genus which will probably be split into two or three genera once correctly revised. I would not exclude the possibility that for the sake of stability a further application would be needed at that time to designate another type species for *Homaloptera* or replacement type material for *H. ocellata*. On the other hand, *Balitora* Gray, 1830 has recently been revised and the type species, *B. brucei* Gray, 1830, is known from good series of museum specimens. A neotype has also been designated (Kottelat, 1988). The advantage of using the senior family-group name (based on a well defined monophyletic genus whose type species is well known and with good, recently-described type material) instead of the junior name (based on a poorly described and poorly known type species with dubious type material) is obvious.

The family HOMALOPTERIDAE sensu Sawada (1982), or BALITORIDAE sensu Kottelat (1988), covers a completely different phylogenetic assemblage from HOMALOPTERIDAE as previously used. Para. 2 of Hieronimus's application completely fails to appreciate that the present concept of relationships follows Sawada (1982) and is radically different from that in all the works cited in the application. The HOMALOPTERIDAE of these authors includes about 40 species (mostly known from one or a few specimens), while the BALITORIDAE as now understood includes BALITORIDAE auctt., GASTROMYZONIDAE auctt., NEMACHEILINAE and VAILLANTELLINAE (both formerly placed in COBITIDAE) and a few genera whose position had earlier been uncertain, thus comprising a complex group of more than 500 valid species. The introduction of the correct family-group name almost simultaneously with the completely revised systematics did not create additional confusion; on the contrary, this was the most convenient way to reduce the risk of confusion. There is little doubt that those authors who now use BALITORIDAE are aware of recent developments in the interrelationships of the Cobitoidei, while those who persist with HOMALOPTERIDAE are not.

The first sentence of para. 3 of the application, which reports 'Kottelat (1988, p. 489) himself admits that the replacement of HOMALOPTERIDAE by BALITORIDAE creates additional confusion in the suborder Cobitoidei' is a complete misrepresentation of what I actually wrote. This was: 'Considering recent and expected changes in systematics and nomenclature in Cobitodei (see for example Sawada, 1982 and Kottelat, 1986, 1987) replacement of HOMALOPTERIDAE by BALITORIDAE should not create much additional confusion'. As an author working on this group of fishes I did not consider that 'the application of the Principle of Priority would disturb stability and universality or cause confusion' (Article 23b of the Code). In fact, being mindful of the need for stability, I explicitly stated (Kottelat, 1988, p. 489): 'Conservation of HOMALOPTERIDAE would be possible only by use of the plenary powers of the International Commission on Zoological Nomenclature. This would require a long procedure and thus, immediate introduction of the valid name better helps create a stable nomenclature'. I still maintain that adoption of the correct name was the best solution for stability and the name BALITORIDAE has now become established by existing usage.

I am also rather surprised by para. 4 of the application: 'Kottelat expects changes in systematics and nomenclature in suborder Cobitoidei. Under these circumstances all possible attempts have to be made to stabilize nomenclature'. Does the petitioner intend that we should no longer synonymize names, or try to identify type species, or trace type specimens in order not to affect 'stabilized' nomenclature? No amount of effort to stabilize the nomenclature will prevent the inevitable changes that will result from the systematic revision of these relatively little known groups of fishes.

Hieronimus argued (para. 2) that the name HOMALOPTERIDAE has been widely accepted and lists as evidence six titles of what he calls 'recent publications'. It is noteworthy that all but one of these were published before 1954. Is this evidence that the replacement of HOMALOPTERIDAE will actually threaten stability? He failed to mention that almost no one besides these few authors has been working on 'homalopterids' (sensu prior) and that other uses occur only in a few lists and bibliographies. Noteworthy also is the fact that besides basic systematic literature, there are only two publications dealing with aspects of the biology of these fishes. On the other hand, nowhere has the petitioner mentioned the degree of acceptance and usage of the name BALITORIDAE since its re-introduction in July 1988. It seems that an objective presentation of the case requires that the use of both BALITORIDAE and HOMALOPTERIDAE be summarized. This would show that BALITORIDAE has been adopted almost immediately and that, besides the petitioner's, no comment against its use has been published in the ichthyological literature. On the contrary, it has been widely accepted. A list (held by the Commission Secretariat) of 21 references of papers, books and works demonstrates use of BALITORIDAE instead of HOMALOPTERIDAE since July 1988, and also that the name change has been immediately followed in South and Southeast Asia where most of the fishes occur. It is noteworthy that BALITORIDAE is the name used in the Newsletter of Systematic Ichthyology and in Eschmeyer's (1990, p. 447) *Genera of Recent Fishes*, which is without doubt a milestone publication on fish nomenclature this century. Adoption of names other than those used in such a reference work will certainly create confusion. The name BALITORIDAE has also entered usage in conservation biology and appears in the IUCN's (1990) *Red List*.

I therefore request that the Commission reject Hieronimus's application.

Additional references

Eschmeyer, W.N. 1990. *Catalog of the genera of recent fishes*. 697 pp. California Academy of Sciences, San Francisco.

IUCN. 1990. *1990 IUCN Red List of threatened animals*. 192 pp. IUCN, Gland, Switzerland.

(2) J.S. Nelson
Department of Zoology, Faculty of Science, University of Alberta, Edmonton, Canada, T6G 2E9

I accepted, although reluctantly, the use of the family-group name BALITORIDAE Swainson, 1839 rather than HOMALOPTERIDAE Bleeker, 1859. I agree with the views of Kottelat (above) and think it would be a step backwards to bring back HOMALOPTERIDAE. It is sometimes difficult to decide between stability, priority, common sense, justice to authors, and other factors. However, I feel that the interests of zoological nomenclature would be best served by now staying with BALITORIDAE.

Comment on the proposed precedence of ICHTHYOPHIIDAE Taylor, 1968 (Amphibia, Gymnophiona) over EPICRIIDAE Fitzinger, 1843

(Case 2616 and Opinion 1604; see BZN **45**: 207–209, **46**: 134, **47**: 166–167 and **48**: 152–155)

Hobart M. Smith
122 Ramaley, Campus Box 334, Boulder, Colorado 80309–0334, U.S.A.

I strongly support the conservation of the name ICHTHYOPHIIDAE (perhaps more correctly ICHTHYOPHEIDAE) Taylor, 1968 since it has been widely adopted and no other family name has been used in its place this century. I endorse all four of the new proposals on BZN **48**: 155, although EPICRIIDAE Fitzinger, 1843 is highly unlikely to be needed at the family level.

I have previously suggested (1987; *Bulletin of the Maryland Herpetological Society*, **23**: 128–129) that, since the genitive of *ophis* is *opheos* in classical Attic (i.e. Athenian) Greek (although *ophios* in other forms of ancient Greek), the proper spelling of family names based on generic names ending in *-ophis* should be -OPHEIDAE. There are many such names, usually spelled -OPHIIDAE. Perhaps there is a need for a ruling on this.

Decision of the Commission

Three works by Richard W. Wells and C. Ross Wellington: proposed suppression for nomenclatural purposes

An application by the President of the Australian Society of Herpetologists requesting the suppression for nomenclatural purposes of three works by Richard W. Wells and C. Ross Wellington was published in June 1987 (Case 2531; BZN **44**: 116–121). A number of comments were received and published (see BZN **44**: 257–261; **45**: 52–54, 145–153, 216; **47**: 139–140).

Because of the number of names involved, the issues raised, and the number of comments received, the time for consideration has been extended beyond that which would normally apply to an application before the Commission. At its meeting in Amsterdam in September 1991 the Commission reviewed the case and now reports its decision.

This case has evoked a highly polarised series of responses, even from those who have not had access to the works in question; indeed, limitations of access have raised questions as to the availability of the works.

The intent of the application was to suppress those of the names and type designations in the works which formally met the provisions of the Code, and to do so by suppressing for nomenclatural purposes the works in which those names first appeared. However, it was brought to the attention of the Commission that many of the names had been republished elsewhere. The consequence of this is that such names would become available under the Code from their republished dates, thus making the suppression of the works ineffective.

Those opposing the application did so primarily on one or both of the following grounds:

(1) that the suppression for nomenclatural purposes of three entire contemporary works would constitute a serious infringement of the freedom of taxonomic thought or action;

(2) that the issues raised in the application were taxonomic rather than nomenclatural, and therefore outside the jurisdiction of the Commission.

The applicants and those supporting the application argued:

(1) that the works were so deficient in taxonomic standards that they seriously destabilized the nomenclature of a major regional group of animals;

(2) that the works, published privately and without any of the checks and balances of peer review, were excessively derivative and partly fictitious, and contained false claims of originality. The second publication listed hundreds of unverifiable and apparently non-existent references.

The Commission accepts that, while the impact of the three publications that are the subject of this application has been primarily taxonomic, they have also significantly affected stability and universality of nomenclature. Multiple nomenclatures are now in use for some Australasian frogs and reptiles, and this is inconsistent with both the specific provisions and the underlying principles of the International Code of Zoological Nomenclature. However, it is clear from the comments received that most respondents have been concerned with broad ethical, nomenclatural and taxonomic principles rather than with the nomenclatural stability of a specific group of taxa.

Conversely, the Commission is sensitive to both the ethical and practical implications of using its plenary powers for purposes which might appear to be a form of taxonomic censorship, and so is reluctant to use those powers in suppressing, even though strictly for nomenclatural purposes, three entire contemporary works.

After a review of the application, comments and the works in question, the Commission concluded:

(1) that the arguments for promoting stability and universality by suppression of the three works and those opposing that suppression are both strong;
(2) that the problems arising from the works were mainly taxonomic rather than nomenclatural, resulting primarily from poor scientific and editorial practice;
(3) that the aim of the application, i.e. to eliminate confusion by suppressing names erected in the three works, would not be effectively achieved by suppression of the works;
(4) that the aim of the application would be best achieved by leaving the issues to specialists to be settled through usage, any submissions to the Commission being confined to names rather than to works;
(5) that, by departing from the voluntary Code of Ethics in the International Code of Zoological Nomenclature, Wells and Wellington have displayed a contempt for the Code and its arbitration provisions.

The Commission deplores the clear rejection by Wells and Wellington of virtually every tenet of the voluntary Code of Ethics which forms Appendix A of the Code. However, the Commission is not authorized to base rulings on such breaches, or on the erection of new nominal taxa however unjustified. The Commission has therefore decided that it will not vote on this application, which it considers to be outside its remit. The case is therefore now closed.

The Commission points out that the provisions of the Code apply to all names directly and indirectly involved in this case, and that it will be guided in future submissions by the criteria of usage, nomenclatural stability and the views of the zoological community which it serves.

Finally, the Commission also notes that this case has raised a number of issues which question the ability of the existing Code to deal with the nomenclatural consequences of a developing technology. The revolution in desktop publishing over the past decade, coupled with the ability to scan cheaply entire works and to establish computer-resident databases, undoubtedly challenges the present Code's criteria for the availability of names and works. These and related matters are currently being addressed by the Editorial Committee overseeing the preparation of a draft of a fourth edition of the International Code of Zoological Nomenclature.

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CORRIGENDA

Vol. 46, part 1	
page 81, lines 13 and 23 and page 82, penultimate line	For 'Lacépède in Bonnaterre, 1789' read 'Bonnaterre, 1790'
Vol. 46, part 3	
page 192, line 35	For 'Bonnaterre, 1789' read 'Bonnaterre, 1790'
Vol. 48, part 2	
page 177, last 2 lines and page 178, first 3 lines	Delete: 'Thompson declined to vote ... should have been published'; substitute: 'Thompson abstained, on the basis that some comments by him relevant to the case had not been circulated to Commissioners'.
page 181, last 3 lines	Delete: 'Thompson declined to vote ... should have been published'; substitute: 'Thompson abstained, on the basis that some comments by him relevant to the case had not been circulated to Commissioners'.

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INSTRUCTIONS TO AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Applications should be prepared in the format of recent parts of the Bulletin; the Commission's Secretariat reserves the right to return applications not so prepared.

Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals. Text references should give dates and page numbers in parentheses, e.g. 'Daudin (1800, p. 39) described ...'. The Abstract will be prepared by the Secretariat.

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Submission of Application. Two copies should be sent to: The Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time that it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in ASCII text in IBM PC format. It would also be helpful if applications were accompanied by photocopies of relevant pages of the main references where this is possible.

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